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INTERNATIONAL REVIEW OF INTEGRATED COASTAL ZONE MANAGEMENT

VOLUME III: ANALYSIS AND POTENTIAL APPLICABILITY TO CANADA

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Literature Review to Identify International ICZM Models - International Countries

AFRICA
GENERAL
ARGENTINA
GENERAL
ASIAN
ASEAN REGION
AUSTRALIA
BALTIC SEA
BARBADOS
BELIZE
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VENEZUELA
VIET NAM

AFRICA GENERAL

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Coetzee, M.J. and Geldenhuys, N.D. 1989. Progress with the Implementation of Coastal Management in Southern Africa. Coastal Zone 89', Proceedings of the Sixth Symposium on Coastal and Ocean Management. Conference Charleston, SC, USA, July 11-14, 1989. pp. 1479-1491.

Coughanowr,C.A., Ngoile, M. N., and Linden, O. 1995. Coastal Zone Management in Eastern Africa Including the Island States: A Review of Issues and Initiatives. Ambio. 24 (7/8), pp. 448.

Linden, O. 1994. Synopsis: Resolution on Integrated Coastal Zone Managementin East Africa Signed in Arusha, Tanzania. Ambio. 22 (6), pp. 408

McCreary, S.T. and J.R. Clark. 1989. Coastal Zone Resources Management Profile for West Africa. Coastal Zone '89. Proceedings of the Sixth Symposium on Coastal and Ocean Management, Charleston, SC, USA. July 11-14, 1989. pp. 16-32.

This paper presents the findings of the first workshop on coastal management for the West African region,convened in Mbour, Senegal in November, 1987. Recognizing the critical role of coastal resources in the economies of West Africa, the workshop brought together representatives of twelve nations (Mauritania to Nigeria) to identify common problems, discuss management options, and begin planning a strategy for integrated coastal resource management for their respective nations. This paper reviews key resources issues, profiles four nations that appear to be in the lead (Senegal, Ivory Coast, Ghana and Nigeria), and describes prospects for improved management.

Retief, D., Coetzee, M., Little, T., and Olen, B. 1991. A Coastal Action Strategy for Southern Africa. Coastal Zone 91' Proceedings of the Seventh Symposium on Ocean and Coastal Management Long Beach California, USA July 8-12, 1991. American Society of Civil Engineers, New York. pp. 2750-2762.

Young, T. R. 1994. Legal and Institutional Issues in the Creation and Implementation of Integrated Coastal Zone Management Programs in East Africa. FAO. unpublished.

ARGENTINA

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Brandani, A. 1987. The Coastal Zone of Argentina: Environments and Institutions. Coastal Management. 15 (1), pp. 43-59.

This article provides a descriptive background of environmental resources, activities, and social pressures on the Argentine coast and identifies existing and potential governance arrangements

and management strategies. Argentina has a diversified coastal zone. Geography, demography, and issues determine essentially four coastal regions. The problems motivating consideration of coastal management are erosion, domestic and industrial pollution, and impacts from urban development. These are concentrated in the Buenos Aires metropolitan region and, to a lesser extent, along the Province of Buenos Aires. The remaining 52 percent of the coast to the south--Patagonia and Tierra del Fuego--have localized problems associated with nodes of development. This urban and rural split suggests that Argentina should have two different packages of organizational arrangements and strategies for managing its coastal resources and environments.

Brandani, A. and Rolleri, D. 1993. Argentina: Advances on Coastal Management. In: The Management of Coastal Lagoons and Enclosed Bays. (eds. Sorenson et al.) American Society of Civil Engineers, New York. pp. 234-291.

Lara, A.C., Lara, A.L., and Biondi, E.L. 1993. National Oceanic Programs for Argentina: Basic Considerations. International Symposium. on Coastal Ocean Space Utilization (COSU II), Long Beach, CA (USA), 2-4 Apr 1991. (eds. Grifman, P.M. and Fawcett, J.) pp. 11-28.

The paper delineates a basis for designing National Oceanic Programs in Argentina. It summarizes the recent origins of ocean engineering as an organized discipline and its very rapid development; it also emphasizes the impact of ocean engineering on the economy and society. It is noted that today (due to causes such as the robotization of submarine activities) begins a decade with unsuspected possibilities for accelerating the progress of the country. A reference to the human, physical and economic geography of the Argentine Republic is made to summarize its essential features. According to the characteristics and present circumstances of Argentina and the diverse possibilities of using the ocean, some priorities are indicated: offshore production of oil and gas, nearshore port and harbor operations, different uses of the ocean space, new ocean sources of energy, exploitation of living resources of the sea, etc. It appears that the country faces one of the greatest opportunities to accelerate the economic, social and cultural development of the country. The ocean now offers us unexpected possibilities to satisfy our needs. International cooperation can play a very significant role in enlarging, accelerating and optimizing the capacity for undertaking ocean projects.

GENERAL ASIAN/ASEAN REGION

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Alcala, A.C., Chou, L.M., Miclat, R., Kastoro, W., Fortes, M., Gong, W.K., Sasekumar, A., Bina, R. and Tridech, S. eds. 1991. Proceedings of the Regional Symposium on Living Resources in Coastal Areas. Marine Science Institute, University of Phillipines, Quezon City.

Chua, T.E. 1989. Will Coastal Area Management Programs Work in Southeast Asia?. In: ASEAN-U.S. Policy Workshop on Coastal Area Management, Johore Bahru (Malaysia), 25-27 Oct 1988. (eds. Chua,T.E. and Pauly, D.). ICLARM Conference Proceedings, no. 19, pp. 231-240.

Coastal area management (CAM) is a new concept which establishes coordinated strategies for the rational allocation of environmental, institutional and financial resources for the sustainable use and conservation of the coastal area. In addition to adequate planning, the prerequisities for successful implementation of CAM programs (CAMPs) are interagency cooperation, efficient law enforcement, political support, availability of funds and dedicated coastal resources managers. This paper discusses whether a complex program such as CAMP will work in Southeast Asia, where development goals tend to be geared towards the generation of employment, increase in food supply and eradication of poverty.

Chua, T.E. 1989. Integrated Coastal Resources Management Plan in the Southeast Asian Region. Coastal Zone 89', Proceedings of the Sixth Symposium on Coastal and Ocean Management. Charleston, SC, USA. July 11-14, 1989. pp. 2192-2201.

Chua, T.E. and Scura, L.F. (eds.). 1991. Managing ASEAN's Coastal Resources for Sustainable Development: Roles of Policy Makers, Scientists, Donors, Media, and Communities. Proceedings of the ASEAN/US PolicyConference on Managing ASEAN's Coastal Resources for Sustainable Development, Manila and Baguio, Philippines, 4-7 March 1990. ICLARM Conference Proveedings No. 30. pp. 125.

Chua, T.E. and Garces, L.R. 1992. Regional efforts in the management of the coastal and marine environments in the ASEAN region. Ocean and Coastal Management. 19 (2), pp. 191-198.

The Association of Southeast Asian Nations (ASEAN) which comprises Brunei Darussalam, Indonesia, Malaysia, Philippines, Singapore and Thailand has a combined coastline of 85,504 km and a total sea area of approximately 8.1 million km super(2) (including EEZ). Recognizing the important contributions of the natural systems and the needs to maintain sustainable growth of the economy, ASEAN has over the past several years undertaken collective regional efforts to improve its capacity and capability in the management of the coastal and marine environments. Both national and regional programs are being undertaken through bilateral and multilateral arrangements involving research, training, education, information exchange and promotion of public awareness, all of which are directed towards a better coastal and marine environment.

Chua,T.E. and Garces, L.R. 1992. Marine Living Resources Management in the ASEAN Region: Lessons Learned and the Integrated Managemnt Approach. Hydrobiologica. 285. pp. 257-270.

Chua, T.E. and Scura, L (eds.) 1992. Proceedings of the Regional Workshop on Coastal Zone Planning and Management in ASEAN: Lessons Learned. Bandar Seri Begawan, Brunei Darussalam 28-30 April 1992. Association of Southeast Nations/United States Coastal Resources Mangement Project Conference Proceedings No. 12.

Dixon, J.A. 1989. Coastal resources:Assessing Alternatives. Coastal Area Management in Southwest Asia: Policies, management strategies and case studies (eds. Chua, T.E. and Pauly, D.). ICLARM Conference Proceedings 19. pp. 153-62.

Gomez, E.D. 1995. Coastal Zone Management and Ecosystem Protection: Prospects for Cooperation in Southeast Asia Southeast Asian Programme in Ocean Law, Policy, and Management. Seapol Singapore Conference on Sustainable Development of Coastal and Ocean Areas in Southeast Asia: Post-Rio Perspectives (eds. Koh, K.L. Beckman, R.C., and Chia L.S.). pp. 191-206.

Hay, J.E., Chou Loke Ming. 1993. Contributions to Training in Coastal Zone Management in the Asia Pacific Region. NERRLAP Publication No. 7. UNEP, Bangkok..

International Center for Living Aquatic Resources Management. (ICLARM). 1990. Baguio Resolution on Coastal Resources management: Policy Conference on Managing ASEAN's Coastal Resources for Sustainable Development. The International Center for Living Aquatic Resources Management on behalf of the Association of Southeast Asian Nations/United States Coastal Resources Management Project.

Olson, S.B. et al. 1989. Integrated Resources Management for Coastal Environments in the Asia Near East region. University of Rhode Island, Narragansett, R.I.

Paw, J.N. and Chua, T.E. 1991. Managing Coastal Resources in Cilacap, Indonesia, and Lingayen Gulf, Philippines - An ASEAN Initiative. International Conference on the Environmental Management of Enclosed Coastal Seas '90, Kobe, Japan, 3-6 Aug 1990. (eds. Goda, T. et. al.).

Cilacap and its dynamic Segara (lagoon) Anakan on the southern coast of Java, Indonesia, and the Lingayen Gulf area in northwest Philippines are typical of many areas experiencing intense multiple resource use conflicts, overexploitation of coastal resources and environmental degradation. Coastal settlements are generally densely populated with widespread poverty, especially among fishing communities. Efforts to develop integrated coastal area management plans for the two sites are currently being undertaken to resolve the aforementioned issues and provide some strategies for the sustainable development of the coastal resources as well as alternative livelihood for the coastal inhabitants. The mechanisms of plan development for both sites, including legal and institutional support, are discussed in the contest of regional and local organizations communities participation.

Paw, J.N. and Chua, T. E. 1991. Managing Coastal Resources in Cilacap, Indonesia, and Lingayen Gulf, Philippines - An ASEAN Initiative. Marine Pollution Bulliten. 23, pp. 779-783.

Tobin, R.J. 1992. Legal and organizational considerations in the management of coastal areas. Proceedings of the Regional Workshop on Coastal Zone Planning and Management in ASEAN: Lessons Learned. Bandar Seri Begawan, Brunei Darussalam 28-30 April 1992. (eds. Chua, T.E. and Scura, L.F.) ICLARM Conference Proceedings No. 37. pp. 97-105.

The cause of problems associated with coastal resources can be traced to deficiencies in the organizations responsible for their management. Common behavioral patterns among government institutions in Southeast Asia emerge from the identification of some characteristics of coastal resources as an organizational issue. Examination of prevailing institutional arrangements and legal considerations will lead to a better understanding of how organizations must operate to successfully implement desired goals.

Tobin, R.J. and White, A.T. 1993. Coastal Resources Management and Sustainable Development: A Southeast Asian Perspective. International Environmental Affairs. 5, pp. 50-65.

The sustainable development of coastal resources of the developing nations of Southeast Asia is examined to focus attention on the practical facets of implementation. The resources provide not only food, but also tourism, forest, and energy resources. While the concepts of sustainable development have been embraced worldwide, it has been difficult to accomplish them, especially in developing areas. The barriers to sustainable coastal development are elucidated for Thailand, The Philippines, Indonesia, and Malaysia. Many of the failures can be attributed to shortages of money and skilled personnel and to a lack of political commitment. There is an overwhelming need to identify the institutional barriers to sustainable development and to provide viable frameworks for actions, while acknowledging the world's diversity and the various political and economic conditions that exist in each nation.

Scura, L.F., Chua T.-E., Pido, M.D. and Paw, J.N. 1992. Lessons for Integrated Coastal Zone Management: the ASEAN Experience. In. Integrative Framework and Methods for Coastal Area Management. ICLARM Conf. Proc. 37, pp. 1-70.

Vietnam-Canada Ocean and Coastal Cooperation Program. 1995. Co-Management of Living Coastal Resources in ASEAN: Theory, Practice and Implications for Vietnam. Report from the Training Course "Principles and Practices of Co-management", May 15-17, 1995.

White, A.T. 1989. Comparison of Coastal Resources Planning and Management in the ASEAN Countries. Coastal Zone 89' Proceedings of the Sixth Symposium on Coastal and Ocean Management. Charleston, SC, USA. July 11-14, 1989. pp. 2123-2133.

AUSTRALIA

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Commonwealth of Australia. 1992. A Draft Policy for Commonwealth Responsibilities in the Coastal Zone. December 1992. Commonwealth of Australia, Canberra.

Crawford, D. 1992. The injured coastline - a parliamentary report on coastal protection in Australia. Coastal Management. 20 (2), pp. 189-198.

In April 1991 the House of Representatives Standing Committee on Environment, Recreation and the Arts presented a report to the Australian Parliament on the protection of the coastal environment. The report follows an extensive public inquiry by the parliamentary committee during which it visited various parts of the Australian coastline and held discussions with approximately 500 people from all sections of the community. Some of the major current issues of the coastal zone identified by the committee are: the fragmentation of public decision-making, sewage disposal into the ocean, and endemic conflict among competing interest groups. The committee recommended that the Australian government develop a national coastal zone management strategy in cooperation with state and local governments.

Dutton, I. M., Saenger, P., and Perry, T. 1994. An Integrated Approach to the Management of Coastal Aquatic Resources - A Case Study from Jervis Bay, Australia. Aquatic Conservation: Marine and Freshwater Ecosytems. 4 (1) pp. 57

Goldin, P. and Sann, A. 1993. South East Tasmania case study, Australia. Coastal Zone Management: Selected Case Studies. Organization for Economic Cooperation and Development, Paris, France. pp. 199-226.

The Case study area is a coastal zone where various activities are conflicting, mainly due to absence of management policies, State control or incidentally, lack of essential scientific knowledge. Urbanization and industrialization growth versus other activities that need good water quality, e.g., aquaculture or leisure and tourism. The coastal environment is very sensitive to all these mis-use. The coastal zone concept shall not be restricted to the marine waters, but should also include all littoral zones, fresh water flowing into the coastal zone, and watersheds, since the quality of fresh water influence the marine water quality.

Haward, M. 1993. Ocean and Coastal Zone Management in Australia and New Zealand: Current Initiatives. Ocean and Coastal Management. 19 (3), pp. 292-300.

The governments of Australia and New Zealand are attending more closely to issues related to coastal zone management in the regions surrounding their countries. Several initiatives and other government responses to problems involving coastal zone management in the region are described. The Ocean Rescue 2000 program, being conducted under the aegis of the Australian government, will fund a 10-yr marine conservation effort. A number of state government initiatives being enacted in Australia are also examined. Features of the New Zealand Resource Management Act are reviewed.

Haward, M. 1995. Institutional Design and Policy Making 'down under': Developments in Australian and New Zealand Coastal Management. Ocean and Coastal Management. 26 (2), pp. 87-117.

Haward, M. and Bergin, A. 1991. Austrailian Intergovernmnetal Relations and Coastal Zone Policy. Coastal Zone 91', Proceedings of the Seventh Symposium on Ocean and Coastal Management Long Beach California, USA July 8-12, 1991. American Society of Civil Engineers, New York. pp. 737-751.

A survey of state and federal coastal management regulations in Australia indicates that degradation of the coastal environment has been recognized as a critical issue. Queensland, in particular, has initiated new regulations in response to development and attendant pressure on coastal resources. These state-level initiatives are recommended for future coastal management strategies, within the framework of federal legislation and financial support. These initiatives are compared with coastal management policies in North America.

Haward, M. and Davis, B.W. 1994. Current Developments in Australian Coastal Zone Management. Coastal Zone Canada '94. Cooperation in the Coastal Zone, Halifax, NS, Canada, 1994. (eds. Wells, P.G. Ricketts, P.J.), pp. 19-29.

Australia's lengthy coastline transcends numerous of biogeographic regions, each containing a diversity of marine habitats. Management of the Australian coast reflects a similar diversity in legislative and administrative arrangements. Management and policy making concerning the coastal zone is shaped by the political, legislative and administrative overlap between different spheres of government in Australia. As a result of this overlap in responsibilities it is probably inevitable that the coastal zone has been a perennial focus for government inquiries in Australia.

Hildreth, R.C. 1992. Australian Coastal Management: Some North American Perspectives on Recent Queensland and Other Initiatives. Coastal Management. 20 (3), pp. 255-269.

A survey of state and federal coastal management regulations in Australia indicates that degradation of the coastal environment has been recognized as a critical issue. Queensland, in particular, has initiated new regulations in response to development and attendant pressure on coastal resources. These state-level initiatives are recommended for future coastal management strategies, within the framework of federal legislation and financial support. These initiatives are compared with coastal management policies in North America.

Hildreth, R.G. 1991. Managing ocean resources: New Zealand and Australia. International Journal of Estuarine and Coastal Law. 6 (2), pp. 89-126.

This article is the first of 3 comparing the legal regimes for ocean resources management of New Zealand, Australia, Canada and the United States. Australia, Canada, New Zealand and the United States were active participants and major players in the international negotiations which resulted in the 1982 United Nations convention on the Law of the Sea. The United States (over 2.2 million square nautical miles), Australia (1.9 million square nautical miles), Canada (1.4 million square nautical miles) and New Zealand (1.1 million square nautical miles) have the world's first, second, fourth and seventh largest EEZs respectively. Canada (2.5 million square miles, the world's second largest), the United States (1.12 million square miles) and Australia (1 million square miles) have expansive continental shelves as well. All four nations are in the process of modernizing their legal regimes for offshore resource management.

Holm, M. C. 1993. An Overview of Legal Issues Relevant to Coastal Zone Management in Australia.

Report commissioned by the Coastal Zone Inquiry of the Ressource Assessment Commission.

Hunt, Colin. 1993. The management of coastal resources: A job for the Commonwealth?. Current Affairs Bulletin. 69 (10).

Four out of five Australians live in the coastal zone. Their quality of life and that of their children will be affected by how the natural assets of the zone are managed. The consequences of rapid population growth and unsympathetic development have been compounded by fragmented decision-making by government at the state and local levels. The Commonwealth is now moving to take up the problem, but if the inquiry currently being conducted is to produce more that just another report, it needs to be realistic about the limitations on its jurisdiction and innovative in its strategies. The author reviews the progress of efforts to improve coastal management.

Kirwoken, L.K. and Cote, R.P. 1996. Developments in the Austrailian and Canadian Marine Environmental Management. Chapter of an upcoming book.

Kriwoken, L.K. and Haward, M. 1991. Marine and Estuarine Protected Areas in Tasmania, Australia: the Complexities of Policy Development. Ocean and Shoreline Management. 15 (2), pp. 143-63.

Although international support for marine and estuarine protected areas (MEPAs) has been evident since the 1960s national and sub-national governments have often been slow to establish MEPAs. Attempts to establish MEPAs in the Australian State of Tasmania are used as a case study of the complexities of policy development. The case study highlights the influence of legislative, institutional, and political factors in the development of MEPAs. The analysis of Tasmanian MEPAs leads to a consideration of relevant lessons for the development of such areas elsewhere.

McLaren, W. 1994. Coastwatch: Turning the Tide. Habitat. 22 (2), pp. 12-20.

Miller, I.R.W. and Mumford, P.A. 1989. The Australian Experience. Coastal Management Conference, Bournemouth, May 9-11, 1989. pp. 115-145.

The use of environmental assessment as a planning tool for coastal development in Australia is presented as a model for UK coastal management. Basic theory of environmental protection and its application in developed and developing nations is outlined. The Australian procedure for project assessment and its inherent weaknesses are evaluated. The goals of preservation, improvement, and social management are applicable to UK coastal management.

O'Brien, R.J. 1988. Western Australia's Nonstatutory Approach to Coastal Zone Management: An Evaluation. Coastal Management. 16 (3), pp. 201-214.

Western Australia is fortunate that there have been few natural disasters on the coast. However low levels of coastal erosion during the 1970s demonstrated the need to establish coastal zone management. The erosion was quickly contained because private ownership to the high water mark is almost nonexistent, private property being set back coastal reserves along most of the coast. The provision coastal reserves has been part of a deliberate nonstatutory coastal planning and management approach. As a result Western Australia has been able to use existing acts, coordination between existing government agencies, and coastal policies rather than enact specific coastal legislation to manage the coast.

O'Brien, R. and McRae, I. 1992. Planning for Western Australia's 12,000KM Coastline. Australian

Planner. 30, pp. 86-92.

Pearce, R.J. 1991. Management of the marine environment in Western Australia: An ecosystem approach. In. Proceedings of the International Conference on the Environmental Management of Enclosed Coastal Seas '90, Kobe, Japan, 3-6 Aug 1990. (eds. Goda, T. et al.)

The Environmental Protection Authority of Western Australia (EPAWA) has the responsibility of controlling industrial and domestic waste inputs to state waters. The EPAWA has adopted the concept of "assimilative capacity" as a philosophical approach to maintain the biological integrity of nearshore coastal ecosystems in Western Australia. This approach is based on the assumption that the receiving environment has some capacity, albeit limited, to disperse, dilute and absorb certain types of pollutants without incurring long-term damage to the biological functioning of the marine communities in question.

Pearce, R.J. 1991. Management of the Marine Environment in Western Australia: An Ecosystem Approach. Marine Pollution Bulletin. 23, pp. 567-572.

The Environmental Protection Authority of Western Australia (EPAWA) has the responsibility of controlling industrial and domestic waste inputs to state waters. The EPAWA has adopted the concept of "assimilative capacity" as a philosophical approach to maintain the biological integrity of nearshore coastal ecosystems in Western Australia. This approach is based on the assumption that the receiving environment has some capacity, albeit limited, to disperse, dilute and absorb certain types of pollutants without incurring long-term damage to the biological functioning of the marine communities in question.

Phillips, D.J.H. The marine environment and its management in Australia: An introduction. Marine Pollution Bulletin. 25 (5-8), pp. 121.

This Issue seeks to cover all the major issues associated with the marine environment in Australia, ranging from the conservation of natural resources, to pollution and its management. Manuscripts have been commissioned to cover a variety of topics in the field. Each of these discusses historical studies and reviews the present situation, thus providing a "snapshot" of the existing concerns relating to the marine environment in the nation. This treatment provides a robust view of the present state of the art in Australia with respect to the management of marine environments, which may be contrasted to the situation elsewhere.

Parliament of New South Wales Legislative Council Standing Committee on State Development 1992. Coastal Planning and Management in New South Wales: The Process for the Future. Legislative Council Standing Committee on State Development. Volume 2, Number 8

Robinson, B. Smith, J., and Kenchington, R. 1993. Coastal Zone Management Case Study of the Westernport Region, Victoria, Australia. The Management of Coastal Lagoons and Enclosed Bays. (eds. Sorenson et al.) American Society of Civil Engineers. New York. pp. 32-51.

Resource Assessment Commission. 1993. Coastal Zone Inquiry Final Report. Australian Government Publishing Service, Canberra.

Smith, W. and Jackson, L.A. 1990. An Application of Coastal Management Tactics: Gold Coast, Queensland, Australia. Shore & Beach. 58 (3), pp. 3-9.

The Gold Coast of Australia is a major resort coastal area in need of environmentally sound coastal management policies. Intensive tourist development has jeopardized the very attractions it has sought to exploit. Coastal management by the local authorities has been opportunistic and variable. Some measures addressed have included artificial nourishment, hazard value zoning, development of demountable buildings and revetments, emergency protection, wind resistance, wave erosion, and transfer relocation.

Standing Committee on Environment, Recreation and the Arts, Commonwealth of Australia. 1991. The Injured Coastline: Protection of the Coastal Environment. April 1991. Commonwealth of Austrailia, Caneberra.

State Government of Western Australia. 1992. Interdepartmental Submission by the Coastal Management Co-ordinating Committee, other Departments and Agencies, to the Resources Assessment Commission Inquiry into Coastal Management.

Taberner, J. 1993. Legislative Options for National Coastal Zone Management Report commissioned by the Coastal Zone Inquiry of the Resource Assessment Commission.

TASQUE. 1992. The Role of Local Government in Environmental Management. Prepared by TASQUE for the Local Government Ministers' National Working Group, Hobart.

Westcott, G. 1989. The Planning and Management of the Coast of the State of Victoria, Austrailia. Coastal Zone 89' Proceedings of the Sixth Symposium on Coastal and Ocean Management. Conference Location: Charleston, SC, USA, July 11-14, 1989. pp. 1-15.

Wescott, G. 1993. Policy Without Implementation: Victorian Coastal Zone Management in 1992/93. Environmental and Planning Law Journal. 10 (2), pp. 87.

Professor Hildreth has recently commented on the current state of coastal zone management in Australia. In his paper he state that he had not detected a great deal of "dissatisfaction" with Victorian coastal public land management but that there was still a need to link private and public land planning in a regional context. This article reviews the current state of Victorian coastal zone planning and management and considers some possible changes. The current Resources Assessment Commission inquiry into institutional arrangement on the Australian coast makes this review timely as does the election of a new (Coalition) State Government.

BALTIC SEA

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Auer, M.R. 1994. Regional cooperation to protect the coastal zone of the Baltic Sea. Coastal Zone Canada '94. Cooperation in the Coastal Zone, Halifax, NS, Canada, 1994. (eds. Wells, P.G. Ricketts, P.J.). pp. 111-128.

In 1974, six European nations in the Baltic Sea region signed the Helsinki Convention - a multilateral agreement to protect the Baltic Sea. Each nation in the region was expected to adjust national legislation to meet the terms established under the Convention. Case studies are analyzed of Swedish and Polish efforts to control nutrient loadings to the sea over the past twenty years. Environmental conditions in coastal waters are examined to gage the effectiveness of pollution control policies. Swedish efforts to control point source nutrient loadings met with some success during the

period. However, diffuse sources of nitrogen from Sweden continued to grow. During the same period, Polish environmental policies failed to reduce both point and non-point source nutrient loadings. Recommendations are made for the next round of cooperative environmental action in the region. The region's new Joint Comprehensive Environmental Action Programme identifies over 130 "hot spots" and almost 50 "priority hot spots." Cooperative financing schemes and broader public participation will prove important in regional efforts to remediate these hot spots.

Ferm, R. 1991. Integrated management of the Baltic Sea. Proceedings of the InternationalConference on the Environmental Management of Enclosed Coastal Seas '90. Kobe, Japan, 3-6 Aug 1990. (eds. Goda, T. et al.).

Klaipeda University of Lithuania. 1994. Coastal Conservation and Management in the Baltic Region. Riga (Estonia). Klaipeda (Lithuania). Kaliningrad (Russia). 2-8 May 1994. pp. 39.

The results of an investigation in the coastal zone of the Baltic region are given. The geological structure, the biological, hydrological and lithospheric processes of the coastal zone of the Baltic region are investigated in the reports of the scientists of various countries. The coastal zone is one of the most complex geosystems. Its design is determined by an interaction of many processes of different origin--the Earth's crust, the ocean, the atmosphere, and the biosphere. The diversity of processes and the large amount of energy and matter involved in these determine the key role of the coastal zone in the global system of landscape metabolism. However, the natural coastal processes are more influenced by human activity which causes dramatic, unpredictable and often undesirable changes. There is an acute need for an new approach to the whole complex of coastal problems. Integrated management and wise use of the coastal zone must be the key-words describing efforts to combine new demands of the market economy with sustainable use of natural resources and coastal nature conservation.

Rijsberman, F. 1993. The Effectiveness of the Helsinki Commission as a tool for the integrated coastal resources management in the Baltic Sea. Coastal Zone Management: Selected Case Studies. Organization for Economic Cooperation and Development. Paris, France. pp. 283-310.

This case study reviews the "Convention on the Protection of the Marine Environment of the Baltic Sea", called "Helsinki Convention". This convention is designed to protect the Baltic Sea area from pollution. The Convention was signed in 1974 by all Baltic States (Denmark, Poland, USSR, Finland, Sweden, Germany) and came into force in 1980. It is however an international mutual agreement, and has no multinational political power. HELCOM incorporates all human activities in an integrated management project and has developed an international network of individuals motivated to protect the Baltic Sea Ecosystem. HELCOM proposition are therefore used by its signatory states as directives that, after local national transformations, may be incorporated in national management plans.

BARBADOS

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Atherley, K.A. Smith, D.A. and Nurse, L.A. 1993. An Integrated Coastal Zone Management Programme for Barbados. Coastal Zone 93'. Proceedings of the Eighth Symposium on Coastal and Ocean Manageement. New Orleans, Louisiana, July 19-23, 1993. American Society of Civil Engineers, New York. pp. 2653-2667.

Hendry, M.D. 1993. Production of The Coastal Zone Management Plan and Phase I Investment Project

(Final). DELCAN International Ltd., Feasibility Studies in Coastal Conservation. Prepared for Ministry of Housing, Lands and Environment, Government of Barbados.

Willms & Shier, 1992. Institutional Strengthening Project. Final Report - Stage 1. Prepared for Coastal Conservation Project Unit, Ministry of Labour, Consumer Affairs and the Environment, Government of Barbados.

BELIZE

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Belize CZM Project, n.d. Coastal Zone Management in Belize. Fisheries Dept. Ministry of Agriculture & Fish., Belize City.

Fanning, L.M. and Miller, C.W. 1993. Institutional Considerations for the Integrated Coastal Zone Mangeement of Belize. Coastal Zone 93'. Proceedings of the Eighth Symposium on Coastal and Ocean Manageement, New Orleans, Louisiana, July 19-23, 1993. American Society of Civil Engineers, New York, pp. 2683-2696.

Price, A.R.G. and A.P. Heinanen, 1992. Guidelines for Developing a Coastal Zone Management Plan for Belize. A Marine Conservation and Development Report of IUCN, Gland Switzerland.

BRAZIL

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Azevedo, L.H., Zee, D.M., Tenenbaum, D.R. 1989. Coastal Zone Planning. Coastlines of Brazil. (ed. Neves) American Society of Civil Engineers, New York. pp. 70-83.

Frischeisen, F. et al. 1989. The Coastal management Program in Brazil. Coastlines of Brazil. (ed. Neves) American Society of Civil Engineers, New York. pp. 1-9.

Herz, R. and Mascarenhas, A.S. 1993. Political and Planning Actions on the Brazilian Coastal Management Program. Coastal Zone 93'. Proceedings of the Eighth Symposium on Coastal and Ocean Manageement, New Orleans, Louisiana, July 19-23, 1993. American Society of Civil Engineers, New York, pp. 1084-1091.

Pires-Filho, I.A., and Cycon, D.E. 1987. Planning and managing Brazil's coastal resources. Coastal Management. 15 (1) pp. 61-74.

Rui, N., et al. 1991. Integrated Resources managemennt in Grumari-Guaratiba-marambaia Complex, Rio de Janerio, Brazil. Coastal Zone 91', Proceedings of the Seventh Symposium on Ocean and Coastal Management Long Beach California, USA July 8-12, 1991. American Society of Civil Engineers, New York. pp. 3291-3303.

BRUNEI

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Department of Fisheries-Ministry of Industry and Primary Resources. 1992. The Integrated Management

Plan for the Coastal Zone of Brunei Darussalam

Sirinanda, K.U. 1995. Chapter 20. Brunei Darussalum. Coastal Management in the Asia-Pacific Region: Issues and Approaches (eds. Hotta, K. and Dutton, I.M.). Japan International Marine Science and Technology Federation, Tokyo, pp. 265-276.

Tobin, R.J. 1991. Legal and institutional environment for the management of coastal resources in Brunei Darussalam. ASEAN/US CRMP Workshop on Coastal Resources Management in Brunei Darussalam. Bandar Seri Begawan (Brunei Darussalam), 30 April to 1 May 1991. (ed . Matdanan, S.G., Sharifuddin, H.J.H., DeSilva, M.W.R.N. and Chua, T.E.), ICLARM Conference Proceedings No. 34, pp. 189-206.

This paper reviews the legal and institutional structure for coastal resources management (CRM) and environmental protection in Brunei Darussalam. Assessment of the coverage of existing laws focuses on those that affect: (1) the landward portion of the coastal zone, (2) sand mining, (3) water quality and (4) pesticide use. Results indicate that these laws are adequate to meet acceptable levels of environmental quality. Administrative agencies, however, have yet to use the full authority that the laws provide through their proper translation into relevant rules and regulations. Currently, no single ministry or department has responsibility for overall CRM. Considerable opportunity exists for enhanced coordination among agencies. Changes in existing procedures and institutional arrangements are proposed, mindful of the need to minimize disruption in government when reorganization is attempted. The most significant recommendations call for a national policy for environmental protection and the immediate designation of a lead agency responsible for various aspects of environmental management until a new high-profile unit or department is created.

BULGARIA

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Borrisova, Pl. 1994. Integrated Planning activities for the Bulgarian Black Sea Coastal Area. Intercoast Network. 21.

Borissova, P. Tzwetanov, B., and Savov, B. 1994. Inter-institutional and interdisciplinary co-operation for a new coastal zone management policy of Bulgaria. In. Coastal Zone Canada '94, Cooperation in the Coastal Zone, Halifax, NS, Canada, 1994. (eds. Wells, P.G. Ricketts, P.J.) pp. 64-70.

The Integrated Coastal Zone Management of Bulgaria was initiated by the Regulation No. 3, adopted in 1993, and the National CZM Programme which is being developed by the MRDC with the assistance of the World Bank. The main goal of the Integrated Coastal Zone management Policy is to conserve and develop coastal resources, based on democratic principles, and to protect both the interests of the nation and the local people. This paper presents the international, national and local efforts directed toward common policy for the sustainable Black Sea Coastal Development. The paper also provides information for the co-operation among scientists, engineers, administrators, owners and users in the field of: land restitution, expropriated by the communists fifty years ago; limitation of the construction along the 200 meters coastal zone, determined by the Regulation No 3; enlargement of the protected areas as a tool for the land and marine habitat conservation; and enhancing the role and the power of the NGO's etc.

Savov, B. and Borissova, P. 1993. Bulgarian Coastal Management. Coastlines of the Mediterranean. (ed. Fabbri, P.) American Society of Civil Engineers, New York.

CARRIBEAN

A B C D E F G H I J K L M N O P Q R S T U V W

Alleng, G.P. and Joseph, B.R. 1993. Implications of Technical and Legislative Harmonization for Integrated Coastal Zone Management in the Wioder Carribean Region. Coastal Zone 93'. Proceedings of the Eighth Symposium on Coastal and Ocean Manageement, New Orleans, Louisiana, July 19-23, 1993. American Society of Civil Engineers, New York, pp. 1092-1107.

Cambers G. 1991. Coastal Legislation in the British Virgin Islands, In. Coastlines of the Caribbean. American Society of Civil Engineers. pp. 47-61.

The British virgin Islands (B.V.I.) a group of fifty islands east of Puerto Rico have long been at the forefront of environmental management in the Eastern Caribbean. The B.V.I. is heavily dependent on tourism, most of which is located in the coastal zone. A major environmental workshop in 1986 recognized depletion of coastal resources as a major problem, and the need for the development of new coastal legislation was identified as a priority area. The process whereby the seven major drafts over a period of four years as well as a series of public meetings. The subject areas covered by the legislation are also described in detail, as the legislation evolved through the many drafts the focus shifted from a conservation angle to a coastal management context. During the four years a coastal management agency was set up, the Conservation and Fisheries Department and already many of the administrative procedures for implementation of the Act are in place. It is predicted that the legislation will be enacted early in 1991, regulations to the Act are being prepared. It is hoped that the legislation will provide a framework law for other islands in the region.

Cambers, G. 1992. Coastal zone management: case studies from the Caribbean. Report No. 26 Caribbean Community Secretariat, The World Bank, Environment Division, Washington, DC.

Cambers, G. 1993. Coastal Zone Management in the Smaller Islands of the Eastern Carribean: An Assessment and Future Perspectives. Coastal Zone 93'. Proceedings of the Eighth Symposium on Coastal and Ocean Manageement, New Orleans, Louisiana, July 19-23, 1993. American Society of Civil Engineers, New York, pp. 2343-2352.

Carribean Community Secretariat, 1992. CARICOM Regional Environment Programme. Georgetown, Guyana.

Freestone D. 1991. Problems of Coastal Zone Management in Antigua and Barbuda. Coastlines of the Caribbean. Proceedings of the Seventh Symposium on Coastal and Ocean Management, pp. 61-70.

The number of beaches and the beauty of the coastal areas of Antigua and Barbuda have been the basis for a steep rise in tourism in the last decade, which has resulted in a commensurate acceleration of development in the coastal zone The building of hotel and tourism related facilities has resulted in the draining of important saltpond and mangrove areas, and the need for deep water access for cruise ships has necessitated the dredging of harbour areas. Such developments threaten possible long term environmental damage. Because of the priority which has been given to the development of tourism and its wealth generating importance, it is only recently that attention has started to be given to the co-ordination of the activities which put considerable stress on the coastal zone, and to the establishment of institutions which would permit an informed and long term view of the future development of the coastal zone. This paper assesses the legislative and institutional responses to these problems.

Geoghegan, T. and Barzetti (eds.) 1994. Protected Areas and Community Mangement. Community and the Environment: Lessons from the Caribbean. Caribbean Natural Resources Institute.

Intergovernmental Oceanographic Commission. Subcommission for the Caribbean and Adjacent Regions (IOCARIBE). 1991. Global Change and Coastal Land Loss: Management and Decision-making in Support of Sustainable Development Within the Caribbean and Adjacent Regions. A Programme Proposal. IOCARIBE, Cartagena, Colombia.

Lewsey, C.D. 1990. Reassessing Policy Alternatives for Sustainable Development in Coastal Areas: Implications for the CARICOM Caribbean. Paper presented at Conference on Public Policy Implications of Sustainable Development in the Caribbean, Kingston, Jamaica, May 28-30, 1990. Sponsored by the Government of Jamaica and the Institute for Research on Public Policy, Ottawa, Canada.

Towle, E.L. and R. Volk. 1994. Case Study. From Theory to Practice with Virgin Islands Coastal Management: A Retrospective View. Prepared for InterAmerican Development Bank's 5th Consultative Meeting on the Environment, "NGOs and the IDB - A Focus on Participation", Bridgetown, Barbados, 31 May, 1994.

United Nations Environment Programme (UNEP). 1987. Action Plan For The Caribbean Environment Programme. A Framework For Sustainable Development. UNEP Caribbean Regional Co-ordinating Unit, Kingston, Jamaica.

United Nations Environment Programme (UNEP). 1991. Action Plan for the Environment in Latin America and the Caribbean. UNEP, Regional Office for Latin America and the Caribbean.

Williams, M.C. 1988. Coastal Zone Management Strategies: The Caribbean Experience. Environmentally Sound Tourism in the Caribbean (ed. F. Edwards). The Banff Centre, School of Management, University of Calgary Press.

World Bank. 1994. Initiatives for Regional Action on Caribbean Environmental Issues. Report No. 13045-LAC. Latin America and the Caribbean Region, The World Bank, Washington, DC.

CHINA

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Degong, C. 1989. Coastal zone development, utilization, legislation, and management in China. Coastal Management. 17 (1), pp. 55-62

China, with 18,000 kilometers of continental shoreline, 14,000 kilometers of island shoreline and with over 5,000 islands, has one of the longest national shorelines in the world. The coastal zone in China spans tropical, subtropical and temperate climate zones. Although it occupies only about 15% of the country's area, it holds about 44% of the population. The coastal economy is relatively more developed than in other areas. China has given priority to the development and management of the coastal zone with a three-stage project: first, to formulate a long-term program for development and utilization in the coastal area; second, to improve reclaimed salty soil, strengthen marine fishing measures, develop seawater culture, establish a forest protection system, prevent coastal erosion regulate the transport routes, and establish natural resources and environmental protection areas; and third, to draft legislation and management measures for the coastal zone.

Lu, K. 1990. Marine and coastal management in China: A planning approach. Coastal Management. 18 (4) pp. 365-384.

Development of a sea-use plan as part of the Chinese state planning system is a new attempt to promote the marine sector in a coordinated and integrated way. This article provides background on ocean uses in China, examines the organization of national marine management and institutions, describes the planning system, and reviews major components of the national marine plans.

Wang, L. and Pearse, P.H. 1994. The New Legal Regime for China's Territorial Sea. Ocean Development and International Law. 25 (4), pp. 431.

Wang, Y. 1992. Coastal development and environmental protection in China. Industry and Environment. 15. pp. 7-10.

Projects, administrative organs, and legislation facilitating both exploitation and protection of the coastal zone.

Xu, J. 1992. Environmental protection and management of the coastal zone of Huanghua. Coast. Eng. Haian Gongcheng. 10 (2). pp. 64-72. Chinese.

By means of the rational planning of the coastal zone of Huanghua, five different types of development zones have been delimited and scientific development has been carried out. Several measures have been put forward for controlling the discharge of terrigenous pollutants, strengthening the monitoring, prevention and control of red tides to enable the environment of this area to be protected. In order to strengthen the management of the coastal zone, coastal management and protection systems formed by combination of administration departments with the masses should be established in this area, the initiative of the managerial departments and the broad masses to exercise management should be fully brought into play. Lastly, some problems together with methods for their solution are pointed out that are existing in the current coastal management and protection.

Yu, H. 1989. Marine policy in the People's Republic of China. Marine Policy Report. 1 (3), pp. 237-246.

Marine activities and policies of the People's Republic of China are described from a historical perspective, with emphasis on the present. Various ocean uses are presented, including fisheries, shipping, offshore oil and gas, development of marine minerals, and reclamation of land from the sea. Marine environmental protection and preservation, marine science, technology and education, and marine management are also reviewed. Lessons, experience, and future trends are summarized and analyzed. The article addresses the increased need for integrated marine policy to rationalize marine management in proportion to intensified and diversified marine activities under the new ocean regime.

Fan Zhijie and Cote, R. P. 1990. Coastal Zone of PR China: Management Approaches and Institutions Marine Policy, 14 (4), pp. 305-315

A review of China's coastal zone management structures, laws, and institutional constraints reveals a gradual development of policy in response to development pressures and environmental problems. Management generally occurs by sector, with the state Oceanic Admin coordinating joint projects. The absence of a comprehensive framework weakens the financial and philosophical coordination between sectors.

COSTA RICA

Sorensen, J. 1990. An Assessment of Costa Rica's Coastal Management Program. Coastal Management. 18 (1). pp. 37-63.

Costa Rica has a long customary and legal history of reserving its Pacific Coast and Caribbean Sea for public benefit. The most important law for the management of the coast, enacted in 19[illegible], focuses on the zona maritime-terrestre. Costa Rica thus has the distinction of possessing the longest history (now 12 years) of coastal program implementation among developing nations. A review of the literature on environmental management in developing countries indicates that there are few other success stories. The analysis of Costa Rica's program demonstrates that it has achieved many of its objectives. Seven factors are selected to explain why the program is succeeding.

ECUADOR

Lemay, M.H. 1991. Ecuador Programa de Manejo de Recursos Costeros (Project definition and plan of operation. Inter-American Development Bank.). unpublished report.

Matuszeski, W.E., Perez, E. and Olsen, S. 1988. Structure and Objectives of a Coastal Resource Management Program for Ecuador. URI/AID Tech. Rept., University of Rhode Island, Institute for Coastal Resource Management Project.

Merschrod, K. 1989. In Search of a Strategy for Coastal Zone Management in the Third World: Notes from Ecuador. Coastal Management. 17 (1). pp. 63-75.

The Univ of Rhode Island Coastal Resource Management Project (CRMP) in Ecuador developed a unique working group strategy. CRMP was asked to address the threat that scarcity of shrimp larvae poses to the viability of the Ecuadorean shrimp industry. Reduction of larval mortality between capture and transfer to hatchery ponds was identified as an attainable goal, but first the extent to which pesticides in the water supply are responsible for larval mortality had to be assessed. CRMP adopted the working group strategy that if water contamination could be established as detrimental to the shrimp industry, other constituencies dependent on clean water would join forces with the industry to effect change.

Montano M. and Foer G. 1991. The Development of a Coastal Water Quality Management Strategy in Ecuador. Coastal Zone '91. Proceedings of the Seventh Symposium on Coastal and Ocean Management. pp. 963-974.

The quality of coastal waters is deteriorating in virtually every country of the world. Concerned groups and individuals in countries with scarce financial, technical and political resources need to find creative ways to strengthen institutional capabilities and commitment to deal with water quality issues. All too often, research efforts are duplicated in various institutions using different techniques and the results are often not widely shared. The formation of a Water Quality Working Group is a new approach in Ecuador to coordinate action around water issues. It is comprised of a group of Ecuadorian technicians trained in different areas of chemistry and engineering, and employed by various institutions with interests and responsibilities related to water quality. The Group has met regularly for the past four years as part of the Water Quality Management Program of the Ecuador Coastal Resource Management Project. The group has cooperated to understand the current quality of coastal waters and

to establish guidelines for its use and management. In the beginning, intercalibrations of equipment and techniques were carried out to assure reliable results. The next stage was oriented to sampling and analysis of waters in critical areas, which permitted the documentation of baseline data. Currently, the group is formulating guidelines for water use and management as well as preparing proposals for additional funding. This inter-institutional and multidiciplinary method for developing an agenda and institutional capabilities related to water quality management is a new procedure for Ecuador and can be replicated in other countries.

Robadue, D.D. 1990. Development and conservation planning in Ecuador's coastal zone. Maritimes. 34 (1) pp. 4-6.

Ecuador, a country of 10.5 million people is breaking ground in a bold new effort to define long-term environmental and economic development strategies along its 2,860 km coast. By establishing a national coastal management program by executive ecree on Jan. 19, 1989, President Rodrigo Borja placed a major emphasis on working irectly with local communities, resource users, and public officials. Together they are eparing special area management plans for five coastal sites. This community-based approach to natural resource development and conservation has often been preached but seldom practiced in either the developed or developing world.

Robadue, D.D. and Arriaga, L. 1993. Policies and Programs Toward Sustainable Coastal Development in Ecuador's Special Area Management Zones - Creating Vision, Concensus, and Capacity. Coastal Zone 93', Proceedings of the Eighth Symposium on Coastal and Ocean Manageement, New Orleans, Louisiana, July 19-23, 1993. American Society of Civil Engineers, New York, pp. 2668-2682.

Robadue, D. 199?. Ecuador's Coastal Resources Management Program. InterCoast Network (18: 2-4). Coastal Resources Center, University of Rhode Island, Kingston, R.I.

ESTONIA

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Riggs, P. 1994. Fisheries and coastal management in the Republic of Estonia. Coastal Management. 22. pp. 25-48

Need for Estonia to reduce fishing, manage coastal stocks, and privatize the former collective fisheries, in light of the loss of government subsidies.

EUROPEAN UNION/EUROPE GENERAL

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Ballinger, R.C. and Smith, H.D. 1994. The management of the coastal zone of Europe. Ocean and Coastal Management. 22 (1), pp. 45-85.

A review of the state of coastal zone management in Europe is provided in order to establish future management priorities and research requirements for the European coast. This focuses on information management, assessment procedures and the legal framework for coastal management. Analysis of the development patterns and pressures, and the environmental threats along the coast of Europe suggests that coastal zone management should be conceived within long-term, regional frameworks. Even technical management measures, which lie at the heart of coastal zone management,

have a distinct regional dimension, although at present these tend to be organised on a national scale. It is suggested that there is still considerable scope for further integration between national management programmes, particularly those relating to information management. However, total restructuring of national governments and their legal systems, to achieve more holistic coastal management systems, is deemed impracticable: the onus must lie with local bodies to continue to improve their day to day management of the coast.

Birnie, P.W. 1991. The North Sea legal regime. Ocean Shoreline Management. 16, 3-4.

During the past 20 years, in response to the impetus provided by the United Nations Stockholm Conference on the Human Environment held in 1972, ongstanding international bodies such as the IMO (International Maritime Organization), the OECD (Organization for Economic Co-operation and Development), the Nordic Council, the Council of Europe and the Europeancommunity have adopted active program for protection of the marine environment which had led to the adoption of treaties, regulations, guidelines and codes of practice. The Oslo commission new deals with measures to control and prevent ocean dumping; the Paris Commission with Land-based Sources of Marine Pollution; the bonn Agreements with Co-operation in dealing with oil and other spillages. Even NATO has established a committee on the challenges of Modern Society (CCMS) to promote environmental protection in its area. This paper outlines the regime developed through all these bodies and also examines whether there is a need to develop any new comprehensive body; whether an existing body could be given the lead role, or whether the on-going North Sea Conference, backed by the services of the new Task Force, can fill this role.

Buchholz, H.J. 1992. The Management of the European seas. Elsevier Applied Science. Essex, England

Cendrero, A. 1989. Land-use problems, planning and management in the coastal zone. Ocean Shoreline Management. 12 (5-6), pp. 222.

This issue contains a selection of the contributions presented during the "European Intensive Course on Land-Use Problems, Planning and Management in the Coastal Zone," of the Council of Europe, held in Bilbao, in October 1987. The editor and the authors express their sincere thanks to the Division of Higher Education and Research of the Council of Europe and to the Departamento de Urbanismo, Vivienda y Medio Ambiente of the Basque Government, for their support, which made the organisation of the European Intensive Course possible, and for their permission to use material from the course for the preparation of this special issue of Ocean and Shoreline Management.

Centre d'etudes et de recherches internationales et communautaire. La protection regionale de l'environnement marin: approche europeenne. Universite d'Aix-Marseille. Serie Ouvrages 18. Marseille, Paris.

Durand, G. 1994. Environmental protection in EC less-developed regions. Role of regional development policy. Marine Policy. 18 (2), pp. 148-152.

In order to understand how regional policy contributes to the environmental protection of the less-developed regions' coastal zones, it is first necessary to look at the aims and mechanisms of the European Regional Development Fund, the European Community's principal instrument of financial intervention in these zones, and then at the manner in which the Fund tackles environmental issues.

Enemark, J.A. 1993. The Protection of the Wadden Sea in an International Perspective: Planning, Protection, and Management of the Wadden Sea. Coastlines of the Southern North Sea. (eds. Hillen, R.

and Verhagen) American Society of Civil Engineers, New York. pp. 202-213.

European Commission. Directorate General for Regional Policies. 1995. Coastal resources and integrated coastal development: Oporto, 7 and 8 October 1993: proceedings of the conference. Luxembourg: European Commission, Directorate-General for Fisheries, Directorate-General for Regional Policies.

Ijistra, T. and Freestone, D. 1991. The North Sea: basic legal documents on regional environmental co-operation. Kluwer Academic Publishers, Boston.

Mullard, S. 1995. Towards as EU strategy for integrated coastal zone management. European Environmental Law Review. 4 (1). pp. 16-20.

Absence of coordinated policy for coastal zone management (CZM); pressure on coastal resources; management problems; absence of ntegrated EU policy; potential under the Fifth Environmental Action rogramme, current EU policy measures and EU funding facilities; reasons for more EU involvement; possible features of an EU strategy.

Smith, H.D. and Lalwani, C.S. 1992. The future development of sea use management in Europe. Ocean and Coastal Management. 18 (2-4). pp. 187-196.

Sea use management originated largely in Europe, initially along the lines of individual use groups. Before the middle of the present century these included navigation, strategic uses, fisheries and marine science. Subsequently the major uses expanded and diversified. The organisations involved and their geographical spheres of influence may be classified into local and national, regional and global categories. Management organisations share basic objectives including safety, allocation, environmental control, research and regional development. technical management functions are concerned with interactions between activities and the environment and include technological, environmental, social and information management groups. General management includes co-ordination of technical management, organisational aspects and regional considerations including policy aspects.

Smith, H.D. 1991. The North Sea: Sea use management and planning. Ocean and Coastal Management. 16 (3-4), pp. 383-395

The development of sea use management and planning in the North Sea is concerned with three main themes. First, the foundations of management are based upon technical management functions which include scientific and technological inputs and environmental and social assessment techniques. Upon these are based general management functions including organisational aspects which can be regionally distinguished in terms of complexity of organisation, including sea areas adjacent to urban areas on the one hand, and remaining "rural" sea areas on the other. The overall development of the system is likely to include increasing integration of current management functions, together with a contrast in use types and intensity between the "metropolitan" southern North Sea on the one hand, and the rural central and northern regions on the other

Verhegan, H.J. Hillen, R. and van de Wetering, B.G.M. 1993. The Southern North Sea, Functional Uses and Institutional Arrangements. Coastlines of the Southern North Sea. (eds. Hillen, R. and Verhagen) American Society of Civil Engineers, New York. pp. 1-13.

International and institutional arrangements, relation to national planning, international

agreements, international cooperation, wise-use principle, analysis and comparison of the coastal planning system and instruments used.

????? 1992. Current legal developments in Europe. Interational Journal Estuarine and Coastal Law. 7 (2) pp. 129-134.

The article sets out the Declaration of the European Coastal Conservation Conference 1991, held at The Hague, the Netherlands, 19-21 November 1991. The conference was organized by the Ministry of Agriculture, Nature Management and Fisheries, the Netherlands, and the European Union for Coastal Conservation. The participants concluded: that there was an urgent need to adopt and implement a European strategy for integrated planning and management of all European coastal zones based on the principles of sustainability and sound ecological environmental practice; that conservation and sustainable use of coastal zones was one of the fundamental aspects of such a strategy and that accordingly high priority should be given to specific action to implement this; that this strategy should be applied to the coast as a single coherent system including the coastal waters and estuaries and the land directly or indirectly influenced by and influencing the coastal zone.

FINLAND

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Organization of Economic Cooperation and Development. 1988. Marine Enviroof nment. In. Environmnetal Policies in Finland. OECD, Paris.

FRANCE

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Butler, T. 1994. Marine Natural Reserves in France: Legal Framework, Management, & Comperative Notes for the US Marine Sanctuary Program. Coastal Management. 22 (1)

Calderaro, N. 1993. Droit du littoral. Le Moniteur, Paris.

Coulombie, H. 1992. Le droit du littoral: domaine public maritime, loi littoral, ports maritimes. Litec, Paris.

Coudert, E. 1991. Integrated planning and management of the coastal zones of France. (Planification integree et gestion des zones cotieres en France). Integrated Planning and Management of the Mediterranean Coastal Zones. UNEP 1991. Tech Series Report. No. 61, pp. 33-46. French.

Teinturier, B. 1994. The littoral law: Text and application order. Equinoxe. 47-48, pp. 82-85. French.

The author deals with the environmental protection, area planning, coastal zone, littoral zone, legislation in France.

GHANA

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Biney, C.A., et al. 1993. Coastal Zone Management in Accra, Ghana. Coastlines of Western Africa.

(eds. Awosika, L., Ibe, A., and Shroader, P.) American Society of Civil Engineers, New York. pp. 114-128.

GREECE

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Tsekouras, G.T. 1991. Integrated planning and management of coastal zones - Greek national report. Integrated Planning and Management of the Mediterranean Coastal Zones. UNEP 1991. Tech Series Report. No. 61, pp.. 47-55 French

GUYANA

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Lakhan, V.C. 1992. Planning and development experiences in the coastal zone of Guyana Ocean and Coastal Management. 22 (3), pp. 169-186.

Planning and development experiences in Guyana's coastal zone have evolved from being individualistic, ill-conceived, uncoordinated and theoretically unsound to become more systematic, integrated and practical. After presenting an overview of the efforts made by the early European settlers to make the below sea level, and flood prone coastal zone habitable and cultiable, the paper analyses the planning experiences in the post-emancipation and post Second World War periods. Analysis of the Black Bush Polder project reveals both the positive and negative experiences of policy and planning strategies. Although planners have acquired the experiential knowledge that water control is necessary for coastal development and they have attempted to develop scientific plans, the paper, nevertheless, claims that coastal residents are becoming disenchanted with the escalating and aggravating water control problems. With the planning experience considered as being neither disappointing nor successful the paper concludes that 90% of the country's population will continue living in the coastal zone given rehabilitation and modernization of the water control infrastructure, and implementation of better policy, planning and management strategies.

INDIA

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Indian Association for the Advancement of Science. 1989. Coastal zone management in India. Sreedeep Publications, New Delhi, India

Nayak, B.U. 1992. Planning and Management of the Coastal Zone in India--a Perspective. Coastal Management. 20 (4) pp.365-376.

India's coastal zone has played a very important role in socioeconomic, political, and defense developments. There is a need for establishing one Central Coastal Zone Management Authority at the national level and a suitable agency in each of the maritime states for properly coordinating and implementing the coastal zone managment program of India is examined. It is necessary to consider all major uses of the coastal zone, relevant to its physicl, chemical, and biological regimes, as well as man's socioeconomic and political systems. The goals must be clearly specified and policies with necessary built-in legislative powers should be evolved and applied in planning and implementating the specific goals.

Sinha, P.C. 1989. India's Ocean Policy--South Asian and Global Perspectives. Oceans '89, pp. 164 169.

India's ocean policy, in the Indian Ocean, has been under strain both from within and outside the country. Notable progress has been made in implementing individual marine policy sectors but important shortcomings in implementation and integrating remain. In existing Indian institutional structures and mechanisms, implementation of certain essential functions of marine policy needs intensive model building. Interplay of factors like national necessity and international challenge, and their respective roles in bringing this change is remarkable. India's imperatives as the first pioneer investor have to be analyzed in the light of its growing interest into the established and exciting areas of deep-sea mining, pelagic fisheries, sea farming, offshore engineering, underwater technology, and coastal zone management. There is a need to adopt an integrated marine policy, despite the difficulties inherent in its conception.

INDONESIA

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Asian Development Bank and Government of the Republic of Indonesia. 1992. Marine Resource Evaluation and Planning Study. Final Report. Prepared by: Robertson Group and P.T. Agriconsult International, June 1992.

Burbridge, P.R., Koesoebiono, H.D. and Patton, B. 1988. Coastal Zone Management in the Strait of Malacca. Proceedings of a Symposium on Environmental Research and Coastal Zone Management in the Strait of Malacca 11-13 November, 1985, Medan, Indonesia. School for Resource and Environmental Studies Dalhousie University, Halifax.

Dahuri, R. 1995. Chapter 21 Indonesia. Coastal Management in the Asia-Pacific Region: Issues and Approaches (eds. Hotta, K. and Dutton, I.M.). Japan International Marine Science and Technology Federation, Tokyo, pp. 277-289.

Sloan, N.A. 1993. Marine and Coastal Ecosystems Management - Final Report. Prepared for: Environmental Management Development in Indonesia Project (EMDI) and Ministry of State for Environment, Jakarta, Indonesia.

Sloan and ????? 1994. Advances in marine protected area management in Indonesia: 1988-1993. Ocean and Coastal Management. 25 (1), pp. 63-75.

Indonesia, situated in Southeast Asia, is the world's largest archipelagic state. It has 17 000 islands and 81 000 km of coastline, and has a rapidly growing economy. The country's annual real economic growth was 7.4% in 1990. This growth places substantial pressure upon its resources to support local subsistence activities and to provide sustained economic growth. The Indonesian government has acknowledged the need for a balance between growth and sustained use of natural resources to meet the country's needs in the next century. National development of Indonesia's industries and natural resources is based on a 25-year, long-term plan which commenced in 1969, and ends in 1994. This forms the basis for medium-term, 5-year development plans (REPELITA). In the final REPELITA (V) which ends in 1994, Indonesia has recognised the role which marine protected areas (MPAs) can play in the management of marine resources, and has set a target of 10 million ha of MPAs.

Sloan, N.A. and Sugandhy, A. 1994. An overview of Indonesian coastal environmental management

Coastal Management. 22 (3). pp. 215-233.

An overview of national and international factors shaping Indonesia's coastal environmental management is provided. Indonesia is committed to sustainable development of its coastal lands and waters, but the inventory and capacity of coastal resources for supporting Indonesia's rapid economic growth is not well known. There is a need for Indonesia to evolve from unsustainable single-purpose resource uses toward sustainable multiple resource uses supported by planning and management integrated at the national and provincial levels. Key coastal environmental management challenges are to create a national cross-sectoral coordinating agency, develop provincial management capabilities, and foster community and private sector participation. As this populous developing country begins its second 25-year development cycle, increasing the economic contribution of coastal resources in context with sustainable national development goals will be essential.

Soendoro, T. 1995. Some thoughts on coastal zone planning and management in Indonesia. TELSTRA: telaah strategis = Strategic review. 33. pp. 63.

Wolfe L.D. and Marshall, D.W. 1989. An Action Plan for Sustainable Development of Indonesia's Marine and Coastal Resources. Coastal Zone 89' Proceedings of the Sixth Symposium on Coastal and Ocean Management. Charleston, SC, USA. July 11-14, 1989. pp. 2141-2146.

Yates, B.F. 1994. Implementing Coastal Zone Management Policy: Kepulauan Seribu Marine Park, Indonesia. Coastal Management. 22 (3). pp. 235-250.

Beginning in the early 1980s, the government of Indonesia has been trying to protect the Kepulauan Seribu coral archipelago from overdevelopment. The region was designated a national marine park to enhance the government's ability to enforce environmental regulations there. Unfortunately, the government agency put in charge of the park area was unable to implement these policy decisions effectively. A number of the problems that caused the agency to falter are discussed, including problematic institutional arrangements in the implementing agency, jurisdictional conflicts with other branches of government, and the varied nature of the threats to the health of the region. Lessons that may help future efforts aimed at protecting Indonesian coastal waters are discussed.

ISRAEL

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Brachya, V. 1991. Integrated planning and management of coastal zones - Israel national report. Integrated Planning and Management of the Mediterranean Coastal Zones. UNEP 1991. Tech Series Report. No. 61. pp. 33-46. French.

ITALY

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Maniglio-Calcagno, A. 1991. Planification integree et gestion des zones cotieres - rapport italien (Integrated planning and management of coastal zones - Italian report.). Integrated Planning and Management of the Mediterranean Coastal Zones. UNEP 1991. Tech Series Report. No. 61, pp. 67-79. French.

Mura, P.M. 1989. Coastal Planning and Conservation Policies in Italy. Coastlines of Italy. American

Society of Civil Engineers, New York. pp. 1-15.

Vallega, A. 1989. The Italian Sea: Legal Frameworks and Management Patterns. Coastlines of Italy. American Society of Civil Engineers, New York. pp. 140-149.

JAPAN

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Fukuya, M., Nishi, Y., and Sato, A. 1989. Laws and Regulations for Coastal Management in Japan. Coastal Zone 89'. Proceedings of the Sixth Symposium on Coastal and Ocean Management. Conference Charleston, SC, USA, July 11-14, 1989. pp. 46- 57.

Haruo, A. Kiyoshi, K., and Shinji, T. 1989. Coastal Community Zone Project (C.C.Z). In. Coastal Zone 89' Proceedings of the Sixth Symposium on Coastal and Ocean Management. Charleston, SC, USA July 11-14, 1989. pp. 4213-4219.

Itosu, C. 1995. Japan Chapter 10. Coastal Management in the Asia-Pacific Region: Issues and Approaches (eds. Hotta, K. and Dutton, I.M.). Japan International Marine Science and Technology Federation, Tokyo, pp. 155-166.

Kuroda, K. 1991. Coastal Zone Development Planning Under Multi-Level Governmental Conflicts. In. Coastlines of Japan (ed. Nagao, Y.) American Society of Civil Engineers, New York. pp. 85-92.

Sanbongi, K. 1993. The Seto Inland Sea, Japan. Coastal Zone Management: Selected Case Studies. Organization for Economic Cooperation and Development, Paris, France. pp. 227-256

The Seto Inland Sea is bordered by numerous towns and harbors; and as many people live on fishery and aquaculture products, the water quality is therefore subject to intensive monitoring and regulations. The laws (1971) and subsequent management of water have enhanced the quality of water that was low in the 1960 due to industrialization and development of chemical industries so that the results of such management have already been achieved, and must be maintained

Shinoda, T. Ando, N., and Igarashi, H. 1991. Case Study of the Preparation of Guidelines for Coastal Zone Management on a Japanese Coast. Coastlines of Japan (ed. Nagao, Y.) American Society of Civil Engineers, New York. pp. 93-107.

Someya, A. 1992. Report on the basic legal structure and current movement on port and coastal zone in Japan. Coastal Management. 20. pp.49-72

Emphasis on local government's role in environmental conservation and port and harbor improvement

Uezono, A. 1991. The Comprehensive Utilization of the Coastal Zone in Japan. Coastlines of Japan (ed. Nagao, Y.). American Society of Civil Engineers, New York. pp. 1-5.

KOREA

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Jihyun, Lee. 1992. Applying the Integrated Coastal Management Model to the Masan-Chinhae Bay in the Rupublic of Korea.

Hong, Seoung Yong. 1994. A framework for emerging new marine policy: The Korean experience. Ocean and Coastal Management. 25 (2), pp. 77-101.

The successful paradigm of the Korean economy has clearly benefitted from the export-led development and ready access to common sea lanes. Korea's economic growth, commanding the so-called "ocean-friendly" strategy, has resulted from a systematic program of importing new materials and intermediate goods for processing and export with added value. Ocean industries including distant-water fisheries, shipping and shipbuilding, offshore oil-rig construction and coastal development have been some of the primary marine policy imperatives facing Korea. This paper describes the transformation of Korean marine policy for the past three decades, and reviews the increased need for a new structure of ocean governance, with emphasis on the establishment of a Ministry of Ocean Industry.

Hong, Seoung Yong. 1995. Marine policy in the Republic of Korea. Marine Policy 19(2), pp. 97-113.

Three main factors--the geopolitical situation, the lack of land area and natural resources, and the socioeconomic agenda--have shaped the marine policy of the Republic of Korea. This paper gives an overview of Korean marine policy, paying particular attention to marine-related issues such as fisheries, shipping and shipbuilding, space creation by reclamation, offshore oil and gas exploitation, deep seabed mining ventures, marine science and technology development, and coastal environmental preservation. The governance for Korean marine policy, and a recent movement to establish a New Ministry of Ocean Industry, are also reviewed.

KUWAIT

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

M. Mokhles, Abou-Seida, Safat and Mohamed A. Al-Saraw. 1990. Utilization and Management of Coastal Areas in Kuwait. Coastal Management. 18 (4), pp. 385-392.

Before it developed its oil industry, Kuwait relied on coastal resources for economic growth, and even now, most urban, commercial, industrial, and recreational activities are concentrated in coastal zones. Management of the coastal zone, which consists of a wide variety of ecosystems and geomorphologies, must integrate such uses as recreation, desalinization plants, and shipping harbors. Technical and organizational problems in the management process include conflicts between users, pollution, habitat loss, residential and industrial demands, poor coordination in the absence of a planning body, lack of public awareness, and lack of information.

MALTA

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Cassar, G. 1991. Integrated planning and management of coastal zones - Malta national report. Integrated Planning and Management of the Mediterranean Coastal Zones. UNEP 1991. Tech Series Report. No. 61, pp. 33-46. French.

MALAYSIA

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Ch'ng, K.-L. 1995. Chapter 18. Malaysia. Coastal Management in the Asia-Pacific Region: Issues and Approaches (eds. Hotta, K. and Dutton, I.M.). Japan International Marine Science and Technology Federation, Tokyo, pp. 243-252.

Ch'-ng, K-L. 1994. Coastal zone management plan development in Malaysia with particular reference to the management of fisheries resources. Proceedings of the IPFC Symposium in Conjunction with the twenty-fourth session of IPFC Bangkok Thailand, 23-26 November 1993. FAO Indo Pacific Fisheries Comm., Bangkok, Thailand, pp. 237-247.

Planning, management and development in Malaysia is presently undertaken on a sectoral basis. Numerous ministries, agencies and regional thorities are all variously involved in the development and management of land and natural resources. The situation is further complicated by overlapping jurisdictions concerning land use and marine waters by state and federal governments. Within the framework of an ASEAN-US Cooperative Programme, a pilot plan for coastal esources management has been elaborated for South Johore with the objective of creating a truly integrated plan designed and operated by a group of local scientists, resource managers, administrators and policy makers on a consensus basis. The Coastal Resources Management Plan (CRMP) seeks to establish zones for compatible uses of the resources, prohibition of zones for incompatible activities, zones for the protection of unique resources and ecologically threatened areas. Resource specific management plans for coastal forests, fisheries, island and marine parks and issue-specific plans for coastal erosion, sand mining and water quality have also been developed. The CRMP further provides for area-specific plans for sensitive areas and recommends a legislative and institutional framework for plan implementation The fisheries issues identified by the project are summarised and an overview given of the CRMP strategies set out for the coastal resources in relation to the management needs of the marine fisheries resources.

Looi, K.C. 1989. Integrated Coastal Resource Management Plan: A first for Malaysia. Coastal Zone 89', Proceedings of the Sixth Symposium on Coastal and Ocean Management. Conference Location: Charleston, SC, USA, July 11-14, 1989, pp. 2177-2191.

Mat Suki, R.B., Syed Abdullah, S.M., and Karim, O.A. 1991. Environmental Impact Assessment Requirements for Coastal Development in Malaysia. In. Coastal Zone '91, Proceedings of the Seventh Symposium on Coastal and Ocean Management, Long Beach , California, July 8-12, 1991. American Society of Civil Engineers, New York, pp. 342-356.

Malaysian Coastal Resources Study Team. 1992. The Coastal Resources Management Plan for South Johore, Malaysia. Ministry of Science, Technology and Environment, Malaysia. Association of Southeast Asian Nations/United States Coastal Resources Management Project Technical Publications Series 11.

MEDITTERANEAN

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Chircop, A.E. 1988. Cooperative regimes in ocean management: a study in Mediterranean regionalism. Dalhousie University, Faculty of Law, Halifax.

Grenon, M. and Batisse, M. (Eds.). 1989. The Blue Plan. Future for the Mediterranean Basin. Oxford

University Press, Oxford, UK.

Pavasovic, A. 1994. Regional cooperation and its role in integrated coastal management - experience of the Mediterranean Action Plan - UNEP. Coastal Zone Canada '94, Cooperation in the Coastal Zone, Halifax, NS, Canada, 1994. (eds. Wells, P.G. Ricketts, P.J.). pp. 165-180.

The Mediterranean Action Plan (MAP), as a part of the UNEP's Regional Seas Programme, has been implemented since 1975 with the participation of 20 Mediterranean coastal states and the European Union. MAP is a specific form of regional cooperation in the field of environment-development relations, with the Barcelona Convention and its related protocols as the legal basis. The Plan is conceived as a comprehensive, decentralized, multi-level, and action-oriented programme, with a particular accent on the regional cooperation and needs of the Mediterranean developing countries. From 1990, the programme has been gradually refocused to integrated coastal management based on the concept of sustainable development. MAP Coastal Areas Management Programme, implemented in a number of selected coastal areas, is the practical expression of that refocusing. The analysis of the hitherto MAP achievements indicates that it proved to be a good instrument of regional cooperation, in spite of the very complex political, economic and other conditions prevailing in the Mediterranean region, and that its long-term objectives are being achieved rather successfully.

Truta, S. 1991. Integrated planning and management of Mediterranean coastal zones - synthesis report of the case studies. Integrated Planning and Management of the Mediterranean Coastal Zones. UNEP 1991. Tech Series Report. No. 61, pp. 413-425. French.

In the frame of the Priority Actions Program of the UNEP's Mediterranean Action Plan, PAP RAC initiated, in 1984, the project entitled "Integrated Planning and Management of the Mediterranean Coastal Zones" as one of the most important issues of the Human Settlements priority field. The general objectives of this action are: 1) to stimulate the exchange of experience and knowledge in the sphere of interrelations between economic and physical planning and between physical planning and environment, as well as of implementation of plans and of management practices; and 2) to enable all Mediterranean countries to apply this knowledge in national efforts directed towards rational planning, development and management of coastal zones, harmonized with the Mediterranean environment protection.

United Nations Environment Programme. 1995. Guidelines for the Integrated Mangement of Coastal and Marine Areas: with Special Reference to the Mediterranean Basin. UNEP Regional Seas Reports and Studies No. 161.

Vallega, A. 1992. The management of the Mediterranean Sea: The role of regional complexity. Ocean and Coastal Mangement. 18 (2-4), pp. 279-290.

Moving from a first approach matrix of uses/uses and uses/environment relations in the Mediterranean, two reference frameworks closely influencing sea management, are taken into consideration: a physical framework, with particular attention to the continental margin; and a legal framework as it concerns the width of territorial seas and continental shelves. On this basis, three management patterns for the Mediterranean are identified: (1) the pattern in which the continental margin is narrower than the continental shelf defined by bilateral agreements; (2) the pattern in which the continental margin extends beyond the shelf involving abyssal areas; (3) the pattern in which no agreement has been reached to delimit shelves. A first approach analysis leads to the identification of the areas in which each management pattern could be developed.

Vallega, A. 1995. Towards the sustainable management of the Mediterranean Sea. Marine Policy. 19(1). pp. 47-64.

AB: The Mediterranean Sea is moving from the Action Plan to the adoption of the Agenda 21, namely a sustainable development-inspired programme, extending co-operation between states to the economic development and social equity according to the UNCED Agenda 21. Analysis is focused on the role of a unique physical framework, characterized by complicated tectonic movements, a stage-based below view of the changes in the economic contexts, including the main coastal and ocean uses, and the establishment of a continental shelf-based maritime jurisdictional framework. In the final part, the need to re-structure the decision-making systems is considered.

MEXICO

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Almada, J.L. and Fuentes, L.G. M 1993. Legal and Regulatory Aspects to Support a Mexican Coastal Zone Management Program. Coastal Mnanagement in Mexico: The Baja California Experience. (eds. Almada et al.) American Society of Civil Engineers, New York. pp. 7-14.

Almada, J.L. and Gomez-Morin, L.G. 1993. Coastal Zone Management in Mexico: The Baja California Experience. Coastal Management in Mexico: The Baja California Experience. (eds. Almada et al.) American Society of Civil Engineers, New York. pp. 1-7.

Clark, J.R. 1989. Coastal Zone Management: A State Program for Yucatan, Mexico. Coastal Zone 89', Proceedings of the Sixth Symposium on Coastal and OceanManagement Charleston, SC, USA, July 11-14, 1989. pp. 1466-1478.

Fuentes, L.G.M and Tapia, L.A.B. 1993. Environmental Planning in Baja California: A Methological Approach. Coastal Mnanagement in Mexico: The Baja California Experience. (eds. Almada et al.) American Society of Civil Engineers, New York. pp. 109-119

NIGERIA

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Sokari, G.E. 1989. Planning for Coastal Zone Management Programme in Nigeria. Geojournal. 18 (3). pp. 285-289.

It is the purpose of this paper to take an inventory of some of the existing conditions of the coastal zone especially in the Delta Region and to provide a rationale to recommend a management programme policy framework, with a view to improving the quality of the coastal zone. The remaining part of the paper is divided into three sections. First, a brief definition of the coastal zone is given and the existing conditions are discussed, while in the second section a proposition of a positive management programme is given and in the final section conclusions are made. Key words include: Coastal Zone Management, resource development, oil and gas industry and oil spills.

NETHERLANDS

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Koekebakker, P. and Peet, G. 1987. Coastal zone planning and management in the Netherlands. Coastal Management. 15 (2), pp. 121-133.

This article examines the historic background of coastal planning and management in the Netherlands and relates this to the present coastal problems such as a lack of space for further (urban) development, pollution, and other innovative uses of the coastal zone. Two coastal regions are used as examples for specific coastal problems and policies: the "IJsselmeer" region and the "Waddenzee" region. The evolution of policy in these areas provides exemplary cases of the evolution of coastal planning and management in the Netherlands.

Van Alphen, J. 1995. The Voordelta integrated policy plan: administrative aspects of coastal zone management in the Netherlands. Ocean and Coastal Management. 26(2), pp. 133.

Van Alphen, J.S. and Hoozemans, F.M. 1991. Coastal Zone Managemnt in a Changing Morphological Environment - A Case Study from the Netherlands. Coastal Zone 91' Proceedings of the Seventh Symposium on Ocean and Coastal Management Long Beach California, USA July 8-12, 1991. American Society of Civil Engineers, New York. pp. 2720-2733.

Van Dijk, H. W. J. 1994. Integrated Management and Conservation of Dutch Coastal Areas: Premises, Practice and Solutions. Marine Pollution Bulletin. 29 6-12, pp. 609-617.

Efforts of volunteer conservation organizations in the Netherlands have enhanced the priority of coastal zone management and development on the environmental policy agenda. A change in emphasis in both nature and management goals and criteria used has reshaped governmental policies, as illustrated with examples of integrated nature management of Dutch coastal dunes and the Wadden Sea. A new model based on the zonation of tourism and recreation has proven successful for protecting natural values.

Wolters, G.J.R. 1994. Integrated Environmental Management: The Dutch Governmental View. Marine Pollution Bulletin. 26(?), pp. 272-275.

NEW ZEALAND

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Cantebury Regional Council. 1994. Notified Regional Coastal Environment Plan. Report 94 (17). Christchurch.

Davidson, S. 1991. Current legal development: New Zealand. International Journal of Estuarine and Coastal Law. 6(1), pp. 53-56.

The present article discusses the 2 pieces of recent legislation in New Zealand that have implications for estuarine and coastal conservation and management. The first, the Marine Pollution Amendment Act 1990 which introduces amendments to the Marine Pollution Act 1974 that are necessary to enable New Zealand to ratify the Convention for the Protection of the Natural Resources and Environment of the South Pacific Region (SPREP) 1986 and its associated protocols on dumping and combating pollution emergencies. The second is the Conservation Law Reform Act 1990 which amends a number of existing statutes in order to provide an integrated approach to conservation and management in diverse areas, including coastal and estuarine margins.

Flood, S., Cocklin, C. and Parnell, K. 1993. Coastal resource management conflicts and community action at Mangawhai, New Zealand. Coastal Management. 21 (2). pp. 91-111.

This paper describes and analyzes community response to change in the coastal environment. Mangawhai Harbour in northern New Zealand has been subject to problems relating to the management of the coastal environment since the development of a dual inlet configuration in July 1978. By the early 1990s, conditions in the harbor had deteriorated in several important respects. On the basis of evidence indicating that restoration work may not be successful, government agencies decided against undertaking to control the processes that were operating, despite requests from the local community to do so. Local residents eventually initiated their own environmental management campaign in February 1991. This paper describes the nature of community action at Mangawhai, with reference to appropriate conceptual frameworks. The empirical component of the study, based on close interaction with the community and a questionnaire survey, attempted to identify the perceived causes of environmental change, attitudes toward community leaders, and the views of the community on the performance of government agencies. The research has demonstrated a need for closer interaction between local communities and state authorities, to avoid unnecessary conflicts.

Haward, M. 1993. Ocean and Coastal Zone Management in Australia and New Zealand: Current Initiatives. Ocean and Coast Management. 19 (3). pp. 292-300.

The governments of Australia and New Zealand are attending more closely to issues related to coastal zone management in the regions surrounding their countries. Several initiatives and other government responses to problems involving coastal zone management in the region are described. The Ocean Rescue 2000 program, being conducted under the aegis of the Australian government, will fund a 10-yr marine conservation effort. A number of state government initiatives being enacted in Australia are also examined. Features of the New Zealand Resource Manag Act are reviewed.

Haward, M. 1995. Institutional Design and Policy Making 'down under': Developments in Australian and New Zealand coastal Management. Ocean and Coastal Management. 26(2). pp. 87-117.

Hildreth, R.G. 1991. Managing ocean resources: New Zealand and Australia. International Journal of Estuarine and Coastal Law. 6 (2). pp. 89-126.

This article is the first of 3 comparing the legal regimes for ocean resources management of New Zealand, Australia, Canada and the United States. Australia, Canada, New Zealand and the United States were active participants and major players in the international negotiations which resulted in the 1982 United Nations convention on the Law of the Sea. The United States (over 2.2 million square nautical miles), Australia (1.9 million square nautical miles), Canada (1.4 million square nautical miles) and New Zealand (1.1 million square nautical miles) have the world's first, second, fourth and seventh largest EEZs respectively. Canada (2.5 million square miles, the world's second largest), the United States (1.12 million square miles) and Australia (1 million square miles) have expansive continental shelves as well. All four nations are in the process of modernizing their legal regimes for offshore resource management.

New Zealand Department of Conservation. 1992. The application of Section 32 of the Resource Management Act to the preparation of the draft New Zealand Coastal Policy Statement: Option and Implications Assessment. Department of Conservation, New Zealand.

Meister A. D. and Rosier D. J. 1992. An Evaluation framework for the New Zealand Coastal Policy Statement. Department of Conservation, Science and Research Series No. 53.

Rennie, H.G. The Coastal Environment. Environment Planning in New Zealand, (ed. Menon, A.P. and Perkins, H.C.)

Rennie, H. 1993. Draft New Zealand Coastal Policy Statement Released. InterCoast Network. (18). Coastal Resources Center, University of Rhode Island, Kingston, R.I.

???. 1995. New Zealand coastal policy statement. International Journal of Marine and Coastal Law, August 1995 10 (3) pp. 431-448.

NORWAY

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Andresen, S. and Floistad, B. 1988. Sea use planning in Norwegian waters: National and international dimensions. Coastal Management. 16(3). pp. 183-200.

This paper addresses the extent to which the governmental authorities on the national and international level have the capacity to deal with the more varied and complex management tasks in Norwegian waters. By and large the responsible agencies have succeeded fairly well in handling the inter-use conflicts in national waters and the maritime relations towards neighboring countries. The management tasks have generally not been very complex, however, mainly due to the small Norwegian population and the large ocean areas under Norwegian jurisdiction.

Ibrekk, H.O. and Kryvi, H. and Elvestad, S. 1993. A Nationwide assessment of the suitability of the Norwegian coastal zone and rivers for aquaculture (LENKA). Coastal Management. 21(1), pp. 53-73.

A coastal zone management program called LENKA-Nationwide Assessment of the Suitability of the Norwegian Coastal Zone and Rivers for Aquaculture-was started in 1987 and ended in the summer of 1990. The program aims to develop an efficient and standardized tool for coastal zone planning. In the program consideration is taken of all important existing utilization and judicial aspects connected to the Norwegian coastal waters. As part of the program a methodology for assessing the suitability of marine areas for aquaculture has been developed. The marine areas' holding capacity is determined by a developed model. The main steps in the development of the capacity assessment are as follows: (1) An assessment of the maximum acceptable organic loading of the water body of the marine areas, which is arrived at by subtracting the existing inputs of organic loading and nutrients from the natural capacity of the area to tolerate organic loading and nutrients. (2) An assessment of the area available for aquaculture development, which is arrived at by subtracting all unsuitable areas and all areas already occupied from the total area. The LENKA program shows that 9 percent of the Norwegian coastal areas are suitable and available for aquaculture purposes using current techniques. The annual production of salmon and trout, which in 1990 was 161,000 tonnes, can be increased by approximately 600,000 tonnes without causing detrimental effects on the environment.

Pedersen, T.N., Aure, J., Berthelsen, B., Elvestad, S., Ervik, A.S., and Kryvi, H. 1988. LENKA - a nation-wide analysis of the suitability of the Norwegian coast and watercourses for aquaculture. A coastal zone management program. ICES Council Meeting 1988 Collected Papers. ICES Copenhagen, Denmark. 18 pp.

A coastal zone management program called LENKA was started in 1987 and is to be terminated in 1989. The aim is to make an efficient and standardized tool for coastal zone planning, which, pertaining to law, is the responsibility of the county and municipality. The program aims to be

beneficial for both the environment and for the fish farmers. Consideration is taken to all important existing utilization and judicial aspects connected to the Norwegian coastal waters. This is done by a systematic collection of all available data, systemized in such a way that they are available for future planning. A model for the evaluation of the holding capacity primarily for cage culture based on both oceanographical and topographical criteria is put forth. The cost is divided into three categories of recipient based on topography. A central clue in this model is the evaluation of indices for the quantity of aquacultural activities (measured as organic deposits into the recipient) one may have per square kilometer in differently categorized recipients.

Stewart, J.E., Penning-Rowsell, E.C., and Thornton, S. 1993. The LENKA project and coastal zone management in Norway. Coastal Zone Management: Selected Case Studies. Organization for Economic Cooperation and Development, Paris, France. pp. 257-281.

In order to develop its coastal resources, Norway has put into action a project (1987) called LENKA (from: Nationwide analysis of the suitability of the Norwegian coastal zone and watercourses (freshwater for aquaculture). LENKA is also a planning tool to provide the information based on the aquatic capacity to aid in making choices among the many possible uses of the aquatic environment. Rather than an institutional system, it is an in-depth from-the-interior decision making program. It interacts with all levels of the Government as well as citizens. In the following version, mathematical models and definitive standards will receive more priority. Pollution problems will be considered.

OMAN

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Salm, R.V. and Dobbin, J.A. 1989. Coastal Zone Management, Planning, and Implementation in the Sultanate of Oman. In. Coastal Zone 89'. Proceedings of the Sixth Symposium on Coastal and Ocean Management. Charleston, SC, USA. July 11-14, 1989. pp. 72-79.

PACIFIC ISLANDS

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Byrne, G. 1993. Coastal protection in the South Pacific. SOPAC Secretariat, Suva, Fiji.

Cincin-Sain, B. and Knecht, R.W. 1989. The Emergence of a Regional Ocean Regime in the South Pacific. Ecology and Law Quarterly. 16 (1).

Cornforth, R. 1994. Integrated coastal zone management: The Pacific way. Marine Pollution Bulletin. (1-3) pp. 10-13.

Integrated coastal zone management (ICZM) has begun to make its presence felt in the developing island nations of the South Pacific. While it has not been established long enough in most islands to bring tangible results, one of its most vital features is the way it has developed to meet the particular needs and circumstances of these unique countries.

Holthus, P. 1993. Recent developments in the South Pacific. Ocean and Coastal Management. 19 (3), pp. 289-304.

It is impossible to overstate the importance of coastal areas (coastal lands and nearshore

waters) to Pacific Islands peoples, cultures, and economies, given the exceedingly small areas involved and the fact that subsistence activities, commercial agriculture, and fishing all target the same limited space. This combination of factors is resulting in coastal habitat destruction or degradation, natural resource over-exploitation, and growing conflicts in coastal resource use. In addition, coastal areas now face the threat of sea level rise due to global warming. This report focuses largely on those activities undertaken or coordinated by the Coastal Marine programme of the South Pacific Regional Environment Programme (SPREP) which has been developed over the past six years by the author to address coastal environment issues in a coordinated manner and to promote the development of ICZM in the region.

Johnson, D.C. 1989. Ocean Islands and Coastal Zone Management. Coastal Zone '89. Proceeding of the Sixth Symposium on Ocean and Coastal Management Charleston, SC, USA. July 11-14, 1989, pp. 2161-2173.

Ocean Islands present unique coastal zone management problems. Three U.S territories in the Pacific, Guam, the commonwealth of the Northern Mariana Islands and America Somoa, have addressed these problems. ...This paper highlights how they have balanced the forces of economic growth with the forces of nature, and the ways they have attempted to maintain their island identities. The paper consists of four sections: (1) background; (2) management policies; (3) physical coverage of plans; and (4) public participation in planning.

Rappa, P.J and B.J. Miller. 1989. Coastal Resource Management Planning in the U.S. Affiliated Pacific Islands. Coastal Zone '89, Proceedings of the Sixth Symposium on Coastal and Ocean Management. Charleston, SC, USA. July 11-14, 1989. pp. 2147-2160.

This paper was written at the University of Hawaii at Monoa as part of the Sea Grant Extension Service Program on coastal resource management in the Pacific region. The program uses the expertise of the United States to manage resources for the protection and sustainable development of Micronesia's coastal areas. The paper discusses the program and the problems that have occurred thus far with degradation in the coastal zone. Topics include: data collection, resource survey, plan implementation, and program progress to date. (edited author abstact environ!ine data base).

PHILIPINES

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Alabanza, J.M. 1989. A Philippine Approach to the Integration of Coastal Resources Management into Regional Development Planning. In. ASEAN/US Policy Workshop on Coastal Area Management in Southeast Asia Conference (eds. Chua, T.E. and Pauly, D.) Johore Bahru, Malaysia, Oct 25-27, 1988. ICLARM Conference Proceedings No. 30 . pp. 129-39.

In the Philippines, the National Economic and Development Authority (NEDA) is closely tied with regional and local planning. An extension of NEDA, the Regional Development Council (RDC) is responsible for coordinating development in specific regions. At the local level, committees are responsible for provincial development planning, city and municipal development planning, and village level planning. Coastal zone management is integrated at the regional level, as illustrated by the development process in the Ilocos region.

Alcala, A.C., Vergara, S.G., and Palaganas, V.P. 1994. The Coastal Environment Program: The Philippine situation. Coastal Zone Canada '94, Cooperation in the Coastal Zone, Halifax, NS, Canada

(eds. Wells, P.G. Ricketts, P.J.). pp. 100-108

The Coastal Environment Program (CEP) of the Philippines' Department of Environment and Natural Resources was launched in April1993. This program embodies the Department's and the government's renewed interest in pursuing environmental protection and sustainable management of coastal resources by local inhabitants with the collaboration and technical assistance from the government. Selected areas serve as initial venues for the program's primary strategies. In these areas, community organizing, intensive environmental campaign, training, resource assessment, establishment of linkages with local government units, people's organization, government and non-governments institutions, and academic institutions have been conducted. This paper attempts to present preliminary achievements, evolving strategies and lessons learned from the conduct of the CEP.

Alix, J.C. 19??. Community-based Management: The Experience of the Central Visayas Regional Project. Central Visayas Regional Projects Office HVG Arcade, Subangdaku, Mandaue City, Cebu, Phillipines.

Ferrer, E.M. 1989. People's participation in coastal area management. ASEAN/US Policy Workshop on Coastal Area Management, Johore Bahru (Malaysia), 25-27 Oct 1988. (eds. Chua, T.E. and Pauly, D.) ICLARM Conference Proceedings. No. 19, pp. 117-127.

This paper discusses the need for people's participation in development and coastal zone management and some reasons why this need has been overlooked in the past. Society-, agency- and community-level obstacles to people's participation are presented with suggestions on how to overcome these. Examples from the Philippines are given.

Ferrer, E.M. 1992. Learning and working together: towards a community-based coastal resources management. Research and Extention for Development Office, College of Social Work and Community Development, University of the Philippines.

Kalagayan, B.N.V. 1990. Institutional and legal framework - coastal zone concerns of the Philippines. The Coastal Environmental Profile of Lingayen Gulf Philippines. (eds. McManus, L.T. and Chua, T-E.) ICLARM Techical Report. No. 22., pp. 44-61.

An examination is made of the laws, government agencies and government programmes relevant to coastal zone management in the Lingayen Gulf area, ollowing a brief account of the current state of Philippine coastal zone law, details are given of the disposition and management of fisheries, describing national and state policies, the Bureau of fisheries and aquatic resources, assification of fisheries, government incentives, laws to protect fisheries resources coral resources mollusc resources seaweed resources and the establishment of marine parks and reserves. The disposition and management of forests, minerals and lands are also outlined. Government coastal zone rogrammes and projects, local government and community development and social work programme are discussed, considering also factors related to a community-based coastal resource management.

Kalaw, M.T. 1991. The role and involvement of nongovernmental organizations in the sustainable development of coastal resources. ASEAN/US Policy Workshop on Coastal Area Management in Southeast Asia Conference (eds. Chua, T.E. and Pauly, D.) Johore Bahru, Malaysia, Oct 25-27, 1988. ICLARM Conference Proceedings No. 30., pp. 103-106.

Severe ecological impacts brought about by the devastation of natural resources challenged nongovernmental organizations (NGOs) in the Philippines to evolve dramatically from welfare service

institutions to community developers and dynamic champions of the people's cause. Haribon Foundation, now the largest and leading environmental NGO, best exemplifies this metamorphosis. In 1989, it convened a large coalition of organizations under a program framework, the Green Forum-Philippines. Unfortunately, the parallel trend in the public's growing environmental awareness has been met with government inertia. In the face of this predicament, the Green Forum-Philippines recommends shift in authority from ideology to ecology and power from the state to the people, where NGOs' main function is to empower people and communities towards self-development and self-government. On a broader scale, ASEAN NGOs should take advantage of the region's unequalled biodiversity and transform it into a global center of life science. Initially, an ASEAN academy of life sciences is proposed as a basis for a more concrete transnational advocacy.

McManus, L.T. 1990. Coastal resources management issues and plan formulation. The Coastal Environmental Profile of Lingayen Gulf, Philippines. (eds. McManus, L.T., Chua, T.E.) ICLARM Technical. Report. No. 22, pp. 62-65

Environmental, legal and institutional, and socioeconomic issues regarding coastal resources management in the Lingayen Gulf area are examined, considering also the development of a coastal area management plan.

McManus, L. 1995. Community-based Coastal Resources Management Bolinao, Philippines: An evolving partnership among acadame, NGO's, and local communities. Coastal Management in Tropical Asia: A Newsletter for Practioners. 5. Coastal Resources Center, University of Rhode Island and USAID.

Munoz, J.C. 1994. Planning for the ecologically sustainable harvest of marine resources: A Philippine experience. The Coastal Environment Program: The Philippine situation. In. Coastal Zone Canada '94. Cooperation in the Coastal Zone, Halifax, NS, Canada, 1994. (eds. Wells, P.G. Ricketts, P.J.). pp. 320-329.

In the Philippines setting, CRM planning and implementation is based on the concept of community-based resource management, wherein the local community takes active participation in the management of the bay's resources. In this case, issues and problems, policies, strategies or actions and institutional linkages in the coastal area are better discussed at the community level. The CRM centers on the development of management system on a baywide level. It is integrated and viewed from the perspective of the bay as a management unit and as an interrelated system. The goal of the CRM plan is to maintain the environmental integrity of the coastal and fishery-related systems of the bay.

Payoyo, P.B. 1991. Philippine marine resources policy in the exclusive economic zone. Institute of International Legal Studies Law Center, University of the Philippines. Jacobo & Sons.

Vande-Vusse, F.J. 1994. A community-based resource management approach to address Philippine coastal resource degradation and overfishing. ASEAN/US Technical Workshop on Integrated Tropical Coastal Zone Management, Singapore, 28-31 Oct 1988. (eds. Chou, L.M. et al.). ICLARM Conference Proceedings No. 22.

The Central Visayas Regional Project-I (CVRP-I) has been implementing a US$3.5 million coastal resources management project at 5 sites encompassing 223 km of the central Philippine coastline for the past 4 years. Artisanal fishermen are recognized as the de facto managers of this resource. The project assists in developing a resource management system through community organization and use of simple appropriate technologies. Habitat management addresses both resource

degradation and recruitment overfishing. Methods used by artisanal fishermen include coral reef/seagrass management with sanctuaries, mangrove reforestation and management and artificial reefs. Restoration of the nearshore coastal fisheries can reduce overfishing, allowing the maximization of profit from limited harvests. Fishing communities have responded very well to this approach. Their direct involvement as primary implementors of successful technologies makes them realize that they themselves can significantly improve what many have regarded as a near hopeless situation.

White, A.T. and Lopez, N. 1991. Coastal Resources Management Planning and Implementation for the Fishery Sector Program of the Philippines. Coastal Zone 91`. Proceedings of the Seventh Symposium on Ocean and Coastal Management Long Beach California, USA July 8-12, 1991. American Society of Civil Engineers, New York. pp. 762-775.

PORTUGAL

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Borrego, C. 1993. The Ria De Aveiro, Portugal. Coastal Zone Management: Selected Case Studies. Organization for Economic Cooperation and Development. Paris, France. pp. 53-83.

The Lagoon of Aveiro lies along the west coast of Portugal, connecting to the Atlantic Ocean through a man-made opening in a sandbar; the surrounding region is made up of dunes and forests. Protection of water quality and water pollution are two major concerns in the coastal zone, which is controlled by an array of local, regional and national agencies. The Aveiro Lagoon Office (GRIA) was created in 1988 to evaluate the region and propose measures to protect the environment. Through the project, local resistance was overcome and the Assoc of Municipalities was formed to plan and control development in the region. GRIA supplies environmental information to the association, influencing planning. It also acts as a medium for discussion and negotiation on environmental topics among public and private interest groups. Moreover, through GRIA, facilities for performing environmental tests on air and water and a hazardous waste treatment plant are planned.

RUSSIA

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Bondarenko, V.S. 1990. Coastal management in the USSR: Perestroika on the coast. Coastal Management. 18 (4). pp. 337-363.

This article describes the main features of the system of coastal management in the USSR and the leading trends of perestroika. As a whole, coastal management, as well as the entire system of regional management in the USSR, is characterized by administrative, branch (i.e., ministerial) management, the main features of which were established in the 1920's. This system is typically found in an economy based exclusively on state-owned land, natural resources, and means of production. In this article, some unique features of this system, its main problems, and its potentials for change are discussed. The author describes some contradictory positions in order to show the entire spectrum of opinions.

SIERRA LEONE

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Johnson, R.G and Johnson, R.G. 1994. Managing the Sierra Leone coast. Coastal Zone Canada '94, Cooperation in the Coastal Zone, Halifax, NS, Canada, 1994. (eds. Wells, P.G. Ricketts, P.J.), pp. 330-344.

A detailed discussion on the changes to the coastal area of Sierra Leone is presented. The changes, which are often associated with Man's activities result in the deterioration of the coastal environment. The various activities which include amongst others, fishing, waste disposal agriculture and mangrove wood cutting in many ways turn out to be counter productive in the absence of sound management policies. The extent of the impact of such activities (land use patterns, industrial and domestic wastes disposal) amongst others on marine life, adjoining ecosystems (tidal mudflats, mangrove swamps etc.), and on tourism and residential development are of importance to activities of coastal area management and planning. The increasing coastal population and a poor economic performance of the country are playing a conspicuous role in the whole process of coastal area degradation. Coastal area development also carries with it environmental problems and if not carefully planned with long-term considerations may adversely impact the coastal area. The nature of human impacts in this case is determined by a number of factors including, harbour construction and extension (Sierra Leone River Estuary), clearing of coastal strips for rice cultivation (especially mangrove swamps), building of boat landing sites and other shoreline facilities, tourist resort construction (Tokeh) and Mining activities (Estuaries of the Sherbro and Scarcies River).

SOUTH AFRICA

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Bruton, M. 1992. Charting a course for marine and coastal research and management in South Africa. S. Afr. J. Sci. S. Afr. Tydskr. Wet. 88 (11-12), pp. 554-557.

The Report of the President's Council on a National Environmental Management System for South Africa was prepared by three committees: a Committee for Constitutional Affairs, which handled legal matters, a Committee for Social Affairs, which concerned itself with social, demographic and ecological issues, and a Committee for Economic Affairs, which considered the economic implications of industry and power generation on the environment. These bodies were asked to make recommendations on 'a policy for a National Environmental Management System, with particular reference to the ecological, economic, social and legal implications thereof'. The report is a significant contribution to the development of a new conservation ethic in South Africa, especially in the field of marine science, but it does have shortcomings. In this article aspects of the President's Council Report (the Report) that relate to the marine and coastal environment are summarized, and the comments of the Committee for Marine Science (CMS) on these proposals are given, where appropriate. The CMS is an independent, interdisciplinary committee representative of marine and coastal research scientists and management agencies in South Africa.

Council for the Environment 1989. A policy for coastal zone management in the Republic of South Africa. Joan Lotter Publications.

Gaigher, C.M. 1989. Land-use Planning and Coastal Conservation in South Africa. Coastal Zone 89', Proceedings of the Sixth Symposium on Coastal and Ocean Management, Charleston, SC, USA. July 11-14, pp. 3228-3240.

Glavovic, B.C. 1991. Coastal resource management. Current practice and future challenge. Veld Flora. 1991. 77 (4), pp. 116-117.

Coastal resource management is a vital but challenging task for several reasons. Firstly, the coast has a very important strategic and economic value. The South African fishing industry alone (excluding Walvis Bay) currently employs some 27,000 people and had a wholesale value of about R1,155 billion in 1989.

Malan, D.E. 1994. Coastal zone management in South Africa: The Chief Directorate Environmental Management's role. Coastal Zone Canada '94, Cooperation in the Coastal Zone, Halifax, NS, Canada, 1994. (eds. Wells, P.G. Ricketts, P.J.), pp. 85-98.

South Africa is currently going through a period of considerable change and is also changing towards a federal system and it is unclear what impact this will have on coastal zone management in S.A. Although "environment", and presumably coastal zone management, is listed as a regional function, the interim constitution (Act 2 of 1994) still leaves room for different interpretations. It is concluded that it is uncertain at what level of government coastal zone management will receive attention in a future dispensation. Possibly their is still a need for an over-arching coastal zone management policy, minimum standards etc at national level, with most of the implementation of policy occurring at either provincial or even local level. This paper highlights the existing structures and functions of this Chief Directorate and updates the community on recent developments in czm in South Africa. This includes the coastal policy initiative, "COAST", coastal regulations, off-road vehicle policy, Coastal Management Advisory Programme and other aspects.

Sowman, M.R. 1993. The status of coastal zone management in South Africa. Coastal Management. 21 (3), pp. 163-184.

In this article, an overview of the status of coastal zone management (CZM) in South Africa is presented. Firstly, it provides background to the development of various initiatives to promote sustainable use of coastal resources within the context of sociopolitical changes in South Africa. Thereafter, it examines the progress made with respect to key attributes underpinning most CZM programs. Finally, it identifies obstacles to achieving effective CZM in South Africa and makes recommendations to address these shortcomings. The review reveals that whilst considerable progress has been made in certain areas of program development, such as resource conservation and pollution control, there are several gaps and inadequacies within existing efforts. These include the absence of a clear policy to guide efforts, lack of coordination amongst government departments involved in CZM, as well as inadequacies in our legal and administrative system. The promulgation of a Coastal Zone Management Act and the establishment of a Coastal Unit charged with the coordination and review of all activities impinging on coastal resources are amongst the recommendations made.

SPAIN

Suarez de Vivero, J.L., 1992. The Spanish Shores Act and its implications for regional coastal management. Ocean and Coastal Management. 18 (2-4), pp. 307-317.

The new arrangement of the Spanish State's territory following the Constitution of 1978 led to the decentralization of many administrative decisions on such subjects as territorial planning, coastal management and urban planning, which were transferred to the different regional governments. Ten years later, the States General of Spain passed a new Shores Act (1988). The result of these two actions has been the creation of a new framework for coastal management in which the three administrative levels: government, regional governments and town councils, carry out their jurisdictions

Suarez de Vivero, J.L., and Frieyro, M.C. 1994. Spanish Marine Policy: Role of Marine Protected Areas. Marine Policy. 18 (4). pp.345-353.

The legal framework instituted in Spain for the establishment of marine protected areas (MPAs) is reviewed. These MPAs are limited in number and area but operate within a statutory context that enables the protection of natural space to be extended to the marine environment. Policies for creating MPAs are found at the central governmental and the autonomous region levels and are coordinated to attain similar goals. While protection instruments emphasize preservation of littoral fishing zones, efforts are being increasingly devoted to the realization of marine reserves and regeneration zones.

ST. LUCIA

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Fournier, C.P., Norville, P.O., Langendyk, S.K., and MacKnight, S.D. 1994. Coastal zone management initiatives in St. Lucia. In. Coastal Zone Canada '94. Cooperation in the Coastal Zone, Halifax, NS, Canada, 1994. (eds. Wells, P.G. Ricketts, P.J.). pp. 376-390.

The Government of St. Lucia has embarked on a long term project aimed at developing a Coastal Conservation and Management Plan for the north west shoreline of St. Lucia. This project is being conducted in a effort to maintain enhance the integrity and promote the sustainability of the coastal resources which are vital to the social and economic fabric of St. Lucia. The growth of the tourism industry is dependent on the prominence of a clean marine environment, long and expansive sandy beaches and all the amenities that are associated with these resources. If steps are taken now to preserve the quality of natural resources, St. Lucia will be better able to maintain it's competitive place in the Caribbean tourist market.

Renard, Y. 1994. Community Participation in St. Lucia. 1995. Community and the Environment: Lessons from the Caribbean. Caribbean Natural Resources Institute.

SINGAPORE

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Chia, L.S. and Chou, L.M. 1991. Coastal area management: New possibilities for Singapore. Singapore National Workshop on Urban Coastal Area Management, Singapore (Singapore), 9-10 Nov 1989. (eds. Chia, L.S. and Chou, L.M.). ICLARM Conference Proceedings. No. 25.

The paper first discusses the nature of the coastal environment, the historical development of urban centers along the coast within the Southeast Asian region and the value of coastal resources for economic and social welfare before proceeding with the objectives of coastal area management (CAM). Among the management issues included are how best to satisfy developmental requirements while accommodating environmental needs to cater to the growing demand for the use of coastal resources for recreation and tourism. Highlighted are the new possibilities for utilizing coastal resources such as the creation of a marine park within the Southern Islands and the proposed residential developments on the coastal sites of Simpang, northeast of Singapore, and of Bugis in the Kallang Basin.

Chia, L.S. 1992. Singapore's urban coastal area: strategies for management. ICLARM Technical Reports No. 31. International Center for Living Aquatic Resources Management, Manila.

Goh, C.W. 1991. Opening address-Singapore's coastal area development promises for the 1990s. In L.S. Chia and L.M. Chou (eds.) Urban coastal area management: the experiences of Singapore. ICLARM Conference Proceedings International Center for Living Aquatic Resources Management Philippines. 25, pp. 128.

Mattar, A. 1991. Coastal resources management: The Singapore experience. ASEAN/US Policy Workshop on Coastal Area Management in Southeast Asia Conference (eds. Chua, T.E. and Pauly, D.) Johore Bahru, Malaysia, Oct 25-27, 1988. ICLARM Conference Proceedings No. 30, pp. 83-90.

Limitations in space and natural resources have compelled Singapore to develop coastal resources management (CRM) strategies uniquely its own. Singapore's basic strength-its strategic location in a maritime region-propelled it to become an entrepot and trading post in the 19th century. This factor has also given the country the edge to vigorously expand into other commercial enterprises, including port and shipping services, petroleum and manufacturing industries, recreation and tourism. Reclamation has been the logical solution to accommodate massive housing demands and fast-paced industrialization. Because of the strategic site and intense coastal activities, the government has strictly enforced regulations and international treaties to control coastal pollution. Existing coastal management schemes are under review and new ones have been devised, particularly on environmental conservation and restoration, for future contingencies. The Singapore model illustrates the wisdom of tailoring coastal area management (CAM) plans to conform with the indigenous requirements of each ASEAN country.

Shankar, N.J. and Cheong, H.-F. 1995. Chapter 19. Singapore. In. Coastal Management in the Asia-Pacific Region: Issues and Approaches (eds. Hotta, K. and Dutton, I.M.). Japan International Marine Science and Technology Federation, Tokyo, pp. 253-263.

Tiwari, S. 1991. Developing legal instruments for coastal area management. Proceedings for the Singapore National Workshop on Urban Coastal Area Management, Singapore (Singapore), 9-10 Nov 1989. (eds. Chia, L.S. and Chou, L.M.). ICLARM Conference Proceedings No. 25, pp. 95-97

Managing the coastal area of Singapore can be an awesome task since the entire country can be regarded as coastal in nature. Thus, this paper identifies the boundaries of Singapore's coastal area. It defines the composition of the coastal resources and their uses. There is also a brief description of the 9 environmental acts which have been legislated to ensure the well-being of the coastal area and its resources.

SRI LANKA

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Coast Conservation Deptartment. 1990. Coastal zone management plan. Coast Conservation Department, Colombo

Coastal Resources Management Project. 1993. Are coastal zone management and economic development complementary in Sri Lanka? Proceedings of the Seminar on Coastal Zone Management and Economic Development. Colombo, Sri Lanka.

Lowry K. and H.J.M. Wickremeratne. 1988. Coastal Area Management in Sri Lanka. Ocean Yearbook 7, pp. 263-293.

Key words from article include: geology, conservation, coastlines, shore features, land use, natural resources, erosion features, mining, human ecology and legislation.

Lowry K. and Sadacharan, D. 1993. Coastal Zone Management in Sri Lanka. Coastal Management in Tropical Asia: A Newsletter for Practioners. No. 1. Coastal Resources Center, University of Rhode Island and USAID.

Olsen, S., Sadacharan, D., Samarakoon, J.I., White, A.T., Wickremeratne, H.J.M., and Wijeratne, M.S. (eds.). 1992. Coast 2000. Recommendations for a resource management strategy for Sri Lanka's coastal region. Volume 1. Department of Coastal Conservation, Colombo.

Coastal 2000 is a valuable addition to recent planning efforts for environmental and resource management in Sri Lanka. It provides a farsighted view of the problems and suggests potential solutions which need to be tested and implemented over the coming decade. This volume provides the rationale for a second-generation coastal resources management strategy and describes the current status of coastal management in Sri Lanka. It highlights the context of people, economy and environment in which resource management occurs and identifies the major resource management issues and opportunities.

Olsen, S., Sadacharan, D., Samarakoon, J.I., White, A.T., Wickremeratne, H.J.M., and Wijeratne, M.S. (eds.). 1992. Coast 2000. Recommendations for a resource management strategy for Sri Lanka's coastal region. Volume 2. Department of Coastal Conservation, Colombo.

This second volume of the Coastal 2000 document briefly summarizes the coastal resources management issues selected as the focus for this second-generation coastal resources management program. It sets out the six policies that makeup the strategy.

Perera, E.W.M. 1992. Legislative and Institutional Arrangements for Coastal Zone Management in Sri Lanka. Background paper for the preparation of Coastal 2000: A Resource Management Strategy for the Coastal Zone

Premaratne A. 1991. Difficulties of Coastal Resource Management in Developing Countries: Sri Lankan Experiences. Coastal Zone '91. Proceedings of the Seventh Symposium on Coastal and Ocean Management, pp. 3026-3041.

Addresses the need for integrated coastal management in developing coastal countries. Due to the pressure of over exploitation of coastal resources and use conflicts among the resource users, there is a growing need for integrated coastal management in developing coastal countries. As a result of various economic, social and political developments affecting the Sri Lankan coast, problems such as coastal erosion, resource-use conflicts and degradation of valuable coastal habitat, have increased. These problems are now recognized at a national level. The conflicts and problems were discussed at ministerial level in 1977 and it was decided to set up a separate government institute to initiate a programme to address them. The separate institute established in 1978 was called the Coast Conservation Division, this later became a government department. As a legal supplement to the Department, the Coast conservation Act was enacted in 1981 and this gave legal authority to the Coast conservation Department (CCD). As a requirement of the Coast Conservation Act, a Coastal Zone Management Plan (CZMP) had to be prepared within three years of gazetting of the law. This was gazetted in October 1983 and the CZMP was accordingly prepared in 1988.

Samarakoon, J.I. 1993. Planning and Implementation for the Sustainable Management of Negombo

Lagoon, Sri Lanka. The Management of Coastal Lagoons and Enclosed Bays. (eds. Sorenson et al.) American Society of Civil Engineers, New York., pp. 149-156.

Shankar, N.J. and Cheong, H.-F. 1995. Chapter 19. Singapore. In. Coastal Management in the Asia-Pacific Region: Issues and Approaches (eds. Hotta, K. and Dutton, I.M.). Japan International Marine Science and Technology Federation, Tokyo, pp. 253-263.

Wickremeratne, H.J.M. 1991. Utilizing research for coastal zone management. In. ASEAN US Technical Workshop on Integrated Tropical Coastal Zone Management, Singapore (Singapore), 28-31 Oct 1988 (eds. Chou, L.M., et al.) ICLARM Conference Proceedings No. 22., pp. 291-292.

Inadequacy of the database is a common dilemma that faces resource managers all over the world. The nonavailability of information on the quantitative and qualitative changes in resources over a number of years makes it difficult for resource managers to draw correlations between causes and effects. Hence, it limits their ability to propose management policies and guidelines that impinge on established practices. This is further aggravated by the different approaches that managers and researchers use in acquiring information on coastal resources. The researchers' approach results in the preparation of detailed inventories that the manager has neither the time nor the knowledge to convert to information that will be relevant for anagement purposes. The manager's inability to reach the researcher--to define clearly the issues that he wishes to address and the desired management objectives--often results in wasted effort. In preparing the coastal zone management plan for Sri Lanka, the loss and degradation of natural coastal habitats should be addressed. This paper attempts to document the approaches taken by the coastal zone managers in Sri Lanka to overcome this problem and to present how a productive relationship could be established with researchers to generate information that will be useful in formulating management strategies.

SWEDEN

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Ackefors, H. and Grip, K. 1994. Swedish coastal zone management - a system for integration of various activities. ICES Council Meeting Papers. ICES-CM-1994/F:10. InternationalCounc. for the Exploration of the Sea, Copenhagen.

The stress on the coastal zone and its resources is continuously increasing. During the last decades the exploitation of the coastal zone has become more intensive. The coastal zone is attractive for urban settlement, industries, tourism and weekend-houses, fishing, aquaculture, mineral exploitation, pipe lines, wind-power, shipping and military establishments, nature conservation and marine archeology. In addition the coastal zone is used as a recipient for raw and treated sewage water from urban areas, industries, agriculture, forestry, etc. The multiple uses of the coastal zone items imply competition and conflicts among human uses. Conflicts may also arise between human activities and animals living in the area Hence fishing and aquaculture operations are threatened by eider-ducks, cormorants, seals and other animals. Another side of that conflict is the competition between commercial uses and the interest of nature conservation. The Baltic Sea as well as other sea areas surrounding Sweden are shared with other countries. Environmental problems such as pollution and the allocation of human activities must be solved by agreements between various countries. Marine conventions such as Helcom, Osparcom and the Gdansk Convention regulate such matters. On national basis in Sweden there is a comprehensive framework of acts and ordinances, which regulate the use of land and water areas in the Swedish coastal zone out to the territorial boundary, 12 nautical miles from the baseline. Examples of Swedish laws are: the Planning and Building Act, the Water Act, the Natural

Resources Act, the Environmental Protection Act, the Nature Conservancy Act and the Water Pollution Act. The National monitoring programme is supervised by Swedish Environmental Protection Agency. Two practical examples are given for how the Swedish legislation system is applied, one on aquaculture and one on the building of a bridge between Sweden and Denmark.

Grip, K.E. 1988. Coastal and marine management in Sweden. Acquisition of Marine Surveying Technologies, Addis Ababa. pp. 131-137.

The paper presents the following elements of the Swedish approach to coastal and marine management: data and knowledge regarding ecological, social and economic conditions are collected as a part of a continuous planning process involving all relevant public authorities at the local, regional and national levels; co-operation between industry and environmental authorities is mandatory in the process of granting permits; environmental pollution is controlled through special programs which monitor impacts on the environment and public health. These programs involve monitoring as well as mandatory measures which the industry must follow. Control techniques have been developed and tested over many years; and the supervision of marine activities is crucial to the implementation and enforcement of coastal and marine management policies.

TAIWAN

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Chiau, W.Y. 1994. Coastal policy and administration in Taiwan: A review. Coastal Zone Canada '94, Cooperation in the Coastal Zone, Halifax, NS, Canada, 1994. (eds. Wells, P.G. Ricketts, P.J.). pp. 72-84.

The coastal zone in Taiwan is under increasing pressure from rapid urbanization, pollution, tideland reclamation, tourism development, and aquacultural development. Concerning the degradation of coastal environment, the authorities are actively undertaking several programs for better management of the marine environment. Due to the degradation of this environment, coastal zone management is now emerging on the environmental agenda in Taiwan. However, the authority to protect the marine environment is still diffused among a number of central and local agencies. This paper is to review Taiwan's coastal policy and administration, identify its issues, and develop several strategies to promote the performance of coastal zone management.

THAILAND

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Association of Southeast Asian Nation and United States Coastal Resources Management Project. 1992. The Integrated management plan for Ban Don Bay and Phangnga Bay, Thailand. Published by the International Center for Living Aquatic Resources Management on behalf of the Association of Southeast Asian Nations/United States Coastal Resources Management Project.

Kiravanich, P. 19??. Institutional Capabilities and Coordination for Coastal Area Management in Thailand. Coastal Area Management Planning: Thailand's Experience. Ministry of Science, Technology and Energy, Bangkok, Thailand.

Kiravanich, P. and Buqnpapong, S. 1989. Coastal Area Management Planning: Thailand's Experience. ASEAN/US Policy Workshop on Coastal Area Management in Southeast Asia Conference (eds. Chua, T-E and Pauly, D.) Johore Bahru, Malaysia, Oct 25-27, 1988. ICLARM Conference Proceedings No.

pp. 215-230.

Coastal area management planning (CAMP) was initiated in Thailand in the 1980s to protect fragile coastal zones from overdevelopment. Although there is no national agency responsible for coastal management covering both marine and land resources, provincial and local agencies have a high level of authority. Sectoral plans address tourism, fisheries, and marine national park planning. Case studies from four regions illustrate the interaction among local and national government agencies in the development and implementation of coastal plans.

Kittichaisaree, K. 1990. Development of ocean law, policy and management in Thailand. Marine Policy. 14 (4), pp. 315-323.

This article examines Thailand's national development in ocean law policy and management in the light of recent international practice and the 1982 United Nations Convention on the Law of the Sea.

Pintukanok, A. 1991. Coastal Zone Management, National Implementable Plan and Policy Development - A Case Study of Phuket Island. Coastal Zone 91', Proceedings of the Seventh Symposium on Ocean and Coastal Management, Long Beach California, USA July 8-12, 1991. American Society of Civil Engineers, New York., pp. 1674-1684.

Suphapodok, A. and Baker, I. 1989. Institutional capabilities and coordination for coastal area management in Thailand. ASEAN/US Policy Workshop on Coastal Area Management, Johore Bahru (Malaysia), 25-27 Oct 1988. (eds. Chua,T.E. and Pauly, D.) ICLARM Conference Proceedings No. 19, pp. 205-210.

Thai institutional capabilities and coordination in the implementation of the ASEAN US Coastal Resources Management Project (CRMP) are evaluated under three headings: mandate, organizational structure and professional competence. The Office of the National Environment Board (ONEB) is emphasized because it is the only government agency with mandate, structure and staff appropriate to formulate and coordinate natural resources policies in Thailand.

Sudara, S. 1995. Chapter 17. Thailand. Coastal Management in the Asia-Pacific Region: Issues and Approaches (eds. Hotta, K. and Dutton, I.M.). Japan International Marine Science and Technology Federation, Tokyo, pp. 235-242.

Suphapodok, A. and Baker, I. 1990. Institutional capabilities and coordination for coastal area management in Thailand. ASEAN/US Policy Workshop on Coastal Area Management in Southeast Asia Conference (eds. Chua, T.E. and Pauly, D.) Johore Bahru, Malaysia, Oct 25-27, 1988. ICLARM Conference Proceedings No. 30. pp. 205-210.

Thai institutional capabilities and coordination in the implementation of the ASEAN US Coastal Resources Management Project (CRMP) are evaluated under three headings: mandate, organizational structure and professional competence. The Office of the National Environment Board (ONEB) is emphasized because it is the only government agency with mandate, structure and staff appropriate to formulate and coordinate natural resources policies in Thailand.

Tabucanon, M.S. 1991. State of coastal resource management strategy in Thailand. Marine Pollution Bulletin. 23, pp. 579-586.

This paper firstly presents an overview of the state of coastal resources available in Thailand

It then highlights the pollutants and their causes which jeopardize the preservation and protection of these resources. The government's efforts to maintain a favorable coastal environment rest with several planning, policy making and implementing agencies. The government mechanism through the various agencies is also featured. Case studies, past and present, directed on coastal resource management are discussed and constraints of implementation are pinpointed

Tasneeyanond, P. and Rubthong, S. 1991. Legal and institutional issues affecting the management of Thailand's coastal region: A case study of Phuket Province. Thailand Coastal Resources Management Project. University of Rhode Island.46 pp.

The report presents an analysis of the existing laws and administrative framework for coastal resources management in Phuket, Thailand. It evaluates the legal and administrative situation and defines problems and issues related to city planning, land use, water quality protection, housing and building controls, prevention of coral reef exploitation, as well as the existing institutional arrangements for integrated coastal management in Phuket. The findings may serve as a base for the design and implementation of a proposed national policy on integrated coastal resource management.

Thailand Coastal Resources Management Project. 1991. What Future for Phuket?: An Action Plan to Maintain Environmnetal Quality In Patong, Karon, and Kata Phuket Province, Thailand. Thailand Coastal Resources Management Project.

TUNISIA

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Ben-Brik, T. 1995. Tunisie: protection de l environnement en trois couleurs. Jeune-Afr-Econ, pp. 38.

Khantouche, N. and Saad, T. 1991. Planification integree et gestion des zones cotieres - rapport national pour la Tunisie. (Integrated planning and management of coastal zones - national report for Tunisia.). Integrated Planning and Management of the Mediterranean Coastal Zones. UNEP 1991. Tech Series Report. No. 61, pp. 55-66. French.

TURKEY

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Balkas, T., Yetis, U., and Chung, C. 1993. The integration of environmental considerations into coastal zone management: Izmir Bay, Turkey. Coastal Zone Management: Selected Case Studies. Organization for Economic Cooperation and Development, Paris, France. pp.85-126.

Izmir Bay is one of the largest on the Aegean coast of Turkey. It is also an important centre for industry, trade and culture. But all the inner Bay has been severely polluted by the industrial discharges and urban sewage. Taken into account the different variables of pollution, a coastal zone management project has been initiated. A circular sewer around the coast of the Bay is under construction, and also a wastewater treatment plant.

Gunay, T. 1991. Integrated planning and management in the Mediterranean coastal zones of Turkey. Integrated Planning and Management of the Mediterranean Coastal Zones. UNEP 1991. Tech Series Report. No. 61, pp. 55-66. French.

????????. 1992. Coastal Zone Management Environmental Policies in Turkey. OECD. pp. 115-154.

Turkey must implement an effective coastal zone management strategy to ensure that the coastal areas of the country do not become overly industrialized. These coastal areas in Turkey are currently the most important economic growth regions. A wide range of development impacts are analyzed, including wastewater-discharge practices and large-scale modifications of the coastal landscape. A survey of the main coastal features of Turkey is included. The effects of industry, agriculture, and tourism on coastal areas are analyzed, and the agencies responsible for management of coastal resources are described.

UNITED KINGDOM

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Brooke, J. and Paterson, C. 1993. Estuary Management: The British Experience. Coastal Zone 93'. Proceedings of the Eighth Symposium on Coastal and Ocean Manageement. New Orleans, Louisiana. July 19-23, 1993. American Society of Civil Engineers. New York. pp. 56-67.

Gibson, J. 1993. Coastal zone planning law: Role of law in management of the coastal zone in England and Wales. Marine Policy. 17 (2). pp. 118-129.

The implementation of coastal zone management in England and Wales is dependent on the law. Many of the defects in the present law are the result of the historical property rights of the Crown in the foreshore and seabed, which have affected local government, planning, environmental assessment and nature conservation. The coordination of administrative action is impeded by the ultra vires principle and the failure of sectoral laws to take account of their interrelationship. Nevertheless, although major legislative reforms are needed, several procedures already exist whereby coastal zone management could be introduced.

Govan, H. and Hambrey, J.B. 1995. Integrated Coastal Zone Management: Participatory management, the way forward?. Nautilus Tech. Series No. 3.

In stark contrast to the volume of material published on Coastal Zone Management (CZM) and related issues, many countries, including the UK, have yet to come up with coherent and practicable strategies. This is particularly an issue if the concept of sustainability is to be truly embraced. Most coastal resource users are experiencing difficulties with sustainable usage and conflicts with other users. As each user group is already under pressure, conflicts between groups are all the more bitter and intractable. The need for a new and integrated approach to the management of coastal marine resources has been recognised and in this paper we suggest that it is urgently required. We highlight the need to fully integrate financial, socio-economic and environmental criteria. Legislation aimed at tackling individual problems abounds just as do local, regional and national CZM initiatives in the UK. However these individual approaches tend to lead to parochialism and sectoralism and greater risks of conflict, a situation which could be avoided if they were incorporated into a wider strategic framework. Increased participation of resource stakeholders is put forward as key to any approach to managing the coastal zone. The strengths and weaknesses of participatory management are discussed in the light of local management experiences from around the world and possible frameworks for implementation are discussed.

Gubbay, S. 1990. A Future for the Coast? Proposals for a U.K. Coastal Management Plan. A report to the World Wildlife Fund for Nature from the Marine Conservation Society.

Gubbay, S. 1991. A Definition of the "Coastal Zone" for the UK Coastal Management Programmes. Discussion Paper CZM/1. Marine Conservation Society.

Gubbay, S. 1991. A Coastal Zone Management "Unit" for the UK. Discussion Paper CZM/2. Marine Conservation Society.

Gubbay, S. 1993. CZM in the United Kingdom. InterCoast Network. 18: 6 Coastal Resources Center, University of Rhode Island, Kingston, R.I.

Gubbay, S. 1994. Roles of Coastal Groups for Coastal Zone Management. Discussion Paper CZM/4. Marine Conservation Society.

Gubbay, S. 1992. Regions for Coastal Zone Management. Discussion Paper CZM/3. Marine Conservation Society.

Gubbay, S. 1992. Progress and opportunities for advancing marine nature conservation through coastal zone management in the United Kingdom. Aquatic Conservation of Marine and Freshwater Ecosystems. 2(4), pp. 357-362

The idea of "Coastal Zone Management" (CZM) has received a great deal of attention in the UK in the past three years. There is no formally recognized CZM programme but recent significant developments are leading towards its implementation. This "Viewpoint" describes the progress which is being made in discusses the potential benefits to marine nature conservation that could result from a programme of integrated CZM.

Halliday, J.E. 1987. Coastal planning and management in England and Wales: the contribution of district councils. Town Planning Review. 58, pp. 317-29.

Based on survey responses from 82 councils. Degree of administrative specialization, land ownership patterns, and effect of decentralization on policy.

House of Commons Environment Committee. 1992. Coastal zone protection and planning: second report. HMSO, London.

Houston, J. and Jones, C. 1990. Planning and Management of the Coastal Heritage. Symposium Proceedings, Southport

Howarth, W. 1992. Integrated regulation of the coastal zone in the UK. Marine Pollution Bulletin. 24 (9), pp. 430-432.

The House of Commons Environment Committee has recently published its report Coastal Zone Protection and Planning putting forward some timely and far-reaching proposals for new approaches to the regulation of the United Kingdom coastal zone (Second Report, Session 1991-92, HC 17-I and II). The general idea of more effective planning and management of coastal areas through the integration of regulatory powers and duties is gaining the support of an increasingly wide range of environmentally concerned individuals and organizations both nationally and internationally.

National Rivers Authority. 1991. Shoreline Management: The Anglian Perspective. The Future of Shoreline Management Conference Papers. Sir William Halcrow and Partners.

Parker, D. 1993. Coastal Zone Protection on the South Coast of the United Kingdom. In Coastal Zone Management: Selected Case Studies. Organization for Economic Cooperation and Development. Paris. France, pp. 165-196.

Integrated coastal zone management was evaluated in a case study of a 70-km stretch of coastline along the south coast of England. The usual cooperation among the district and county councils in managing the zone are described. Also included are three special projects: an oilfield in the coastal zone, which was developed by British Petroleum; an erosion prevention and reduction program, and a water- quality improvement program. These are described in detail, and the extraordinary administrative cooperation and legislation that was necessary to the implementation of the projects is described in detail.

Rendel Geotechnics. 1993. Coastal planning and management: a review. London: HMSO.

Smith, H.D. 1991. The present and future of coastal zone management in the UK. Land Use Policy. 8, pp. 125-32.

Stoker, G. 1993. Coastal zone protection and planning. Journal of Planning & Environment Law, June 1993, pp. 521-526.

VENEZUELA

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Nieto, H.P. 1993. Linking territorial and coastal planning: The Venezuelan experience. Ocean and Coastal Management. 21, (1-3), pp. 227-243.

Venezuela is located in central northern South America, with some 4 000 km of coastline and near 700 000 km super(2) of marine and submarine areas. The Venezuelan coastal zone is characterized by serious problems of land use and utilisation of its natural resources, caused by a generally anarchical spatial occupation and lack of sufficient legal and administrative means for control. In this paper, a synthesis of the Venezuelan approach to attaining a sustainable development of its marine and coastal zones is presented. This means the accomplishment of the social and economic development of the Venezuelan population in general, and specifically the coastal inhabitants, taking into account the legal and administrative patterns that govern land use planning and the utilisation of natural resources, particularly in marine and coastal areas. The paper is organised in three parts: the diagnosis of the current situation; the resentation of a hypothesis based on present trends (trend scenario); and the statement and application of a sound and adequate solution (desirable and possible scenario).

United Nations Environment Programme (UNEP). 1992. Training in Land and Coastal Use Planning - Case Study Venezuela. CEP Technical Report No. 13. UNEP, Caribbean Environment Programme, Kingston, Jamaica.

VIET NAM

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Chu Hoi, N. 1995. Vietnam Chapter 15. Coastal Management in the Asia-Pacific Region: Issues and Approaches (eds. Hotta, K. and Dutton, I.M.). Japan International Marine Science and Technology Federation, Tokyo, pp. 209-224.

Hanson, A.J. 1988. Coastal and ocean resource management: the Vietnam case. Ocean Yearbook 7. (ed. Mann-Borgese, E.).